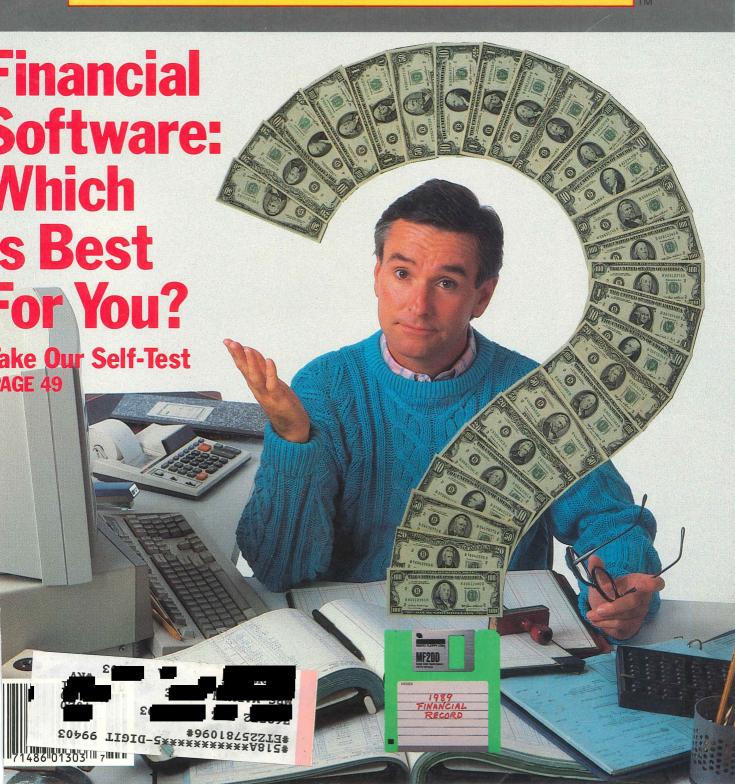
.ow-Cost 386 Computers: Buy Direct and Save Should You Incorporate? 77 Hardware and Software Reviews Organizers: Sharp Wizard vs. Psion

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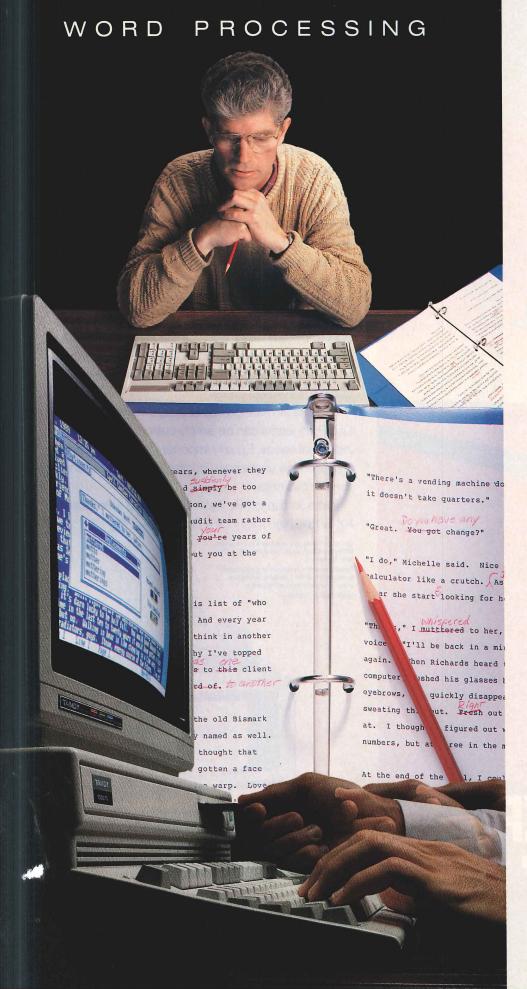
To make all mailings easier, there's Mail-Merge/Mail List. Form letters can be simply customized to your individual needs. Equally important, the new cut sheet feeder allows unattended printing so you can attend to other business.

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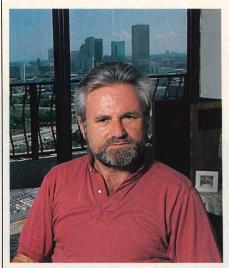
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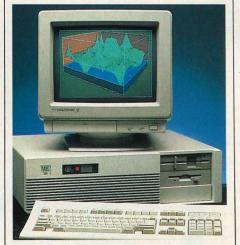
CIRCLE READER SERVICE 68



Page 49



Page 56



Page 61

COVER PHOTOGRAPH BY JOEL WHITE

#### FEATURES

#### **COVER STORY**

#### Which Is the Best Financial Software for You?

Page 49

When it comes to money matters, what kind of person are you? What are the financial needs of your business and what kind of software will address those needs? HOME-OFFICE COMPUTING's financial self-test will guide you through the software maze and lead you to the best check-writing, personal-finance, or small-business accounting programs for your business. *Plus*: reviews of 29 financial packages.

#### **PROFILE**

#### A Panoramic View of Publishing

Page 56

Heinz Dinter's Miami-based book-publishing business and office reflect his attitude that life and work should mesh. The combination of quality literary material and desktop-publishing technology is the key to his company's success.

#### **BUSINESS MANAGEMENT**

#### **Should You Incorporate?**

Page 58

In the wake of recent tax reforms, many of the advantages of running your business as a corporation are now gone. We'll help you decide whether this business shell is the best choice for your home-based business or if sole proprietorship, subchapter S, or even partnership is a better way to go.

#### **BUYER'S GUIDE**

#### **Low-cost 386-based Computers**

Page 61

Mail-order and direct-market computer manufacturers offer both reliability and savings to home-based professionals—advantages that should be especially attractive to those buying state-of-the-art 386-based hardware. The five 386-based computers reviewed here are among the best you can get direct from the manufacturer.

#### PRODUCTS

Hardware Reviews Page 66

Miniguide to Portable Printers: Reviews and a side-by-side comparison of the Kodak Diconix 150 Plus and Toshiba ExpressWriter301. Miniguide to Hand-held Organizers: Reviews and a side-by-side comparison of the Psion Organiser II Model LZ and Sharp Wizard Model OZ-7000. Computers: Bondwell B300 Laptop and Toshiba T1200 HB Laptop. Modem: Racal-Vadic 2400LC.

Software Reviews Page 72

Long reviews of *Decision Pad*, an information organizer and analyzer; *Generic CADD Level 2 Starter Kit*, a computer-aided-design package for novices; *Nota Bene*, a scholarly word processor; *Hot Line Two*, a comprehensive phone-management program; and *AppleWorks GS*, an integrated package for the Apple IIGS. Capsule reviews of *Celebrity Write*, *InfoGuard*, *Maillist*, *MaxPage*, and *Tony Stewart's Home Office*.

#### FAMILY COMPUTING

#### Editors' Picks: The Year's Best Education and Creativity Software

for Children and Adults

Page 83

These are the very best family software packages we've found over the past year—reading, mathematics, programming, geography, and more.

#### **Software for Learning and Leisure**

Page 86

Education: Long reviews of *Joshua's Reading Machine*, a reading-skills program, and *The Puzzle Storybook*, a writing and puzzle-solving package.

Entertainment: Long reviews of *Red Storm Rising*, a sub-battle simulator set during World War III, and *Indiana Jones and the Temple of Doom*, based on the popular movie.

#### **Entertainment News and Hints**

Page 89

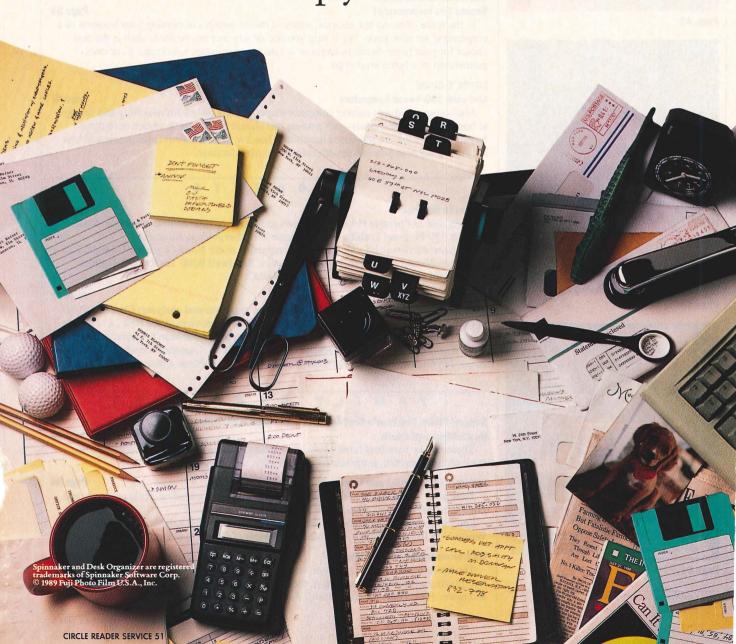
The inside scoop on new software based on ancient games of skill and chance, the latest role-playing adventures from Origin, the next generation of battle-simulation packages, and more. *Plus*: Hints for *Gold Rush!*, *F-19 Stealth Fighter*, and *Defender of the Crown*.



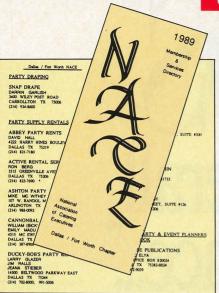
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#### CONTENTS TWO



Page 36



Page 104

#### **ADVISORY BOARD**

Lynie Arden, editor, Worksteader News; Paul & Sarah Edwards, authors and sysops of Compu-Serve's Working from Home Forum; Lis Fleming, director, Association of Electronic Cottagers; Charles H. Gajeway, assistant vice president, Merrill Lynch; Gil Gordon, editor, The Telecomuting Review; Tom Miller, director, ESU Telework Group (a division of Link Resources); Joanne H. Pratt, Joanne H. Pratt Associates, independent consultant.

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#### COLUMNS

ShopTalk Page 18

How Much Should I Charge My Client? Home-business consultant Joanne Pratt gives readers advice on determining fees for your services and choosing a business based on your previous work experience; and she recommends software for business-application developers.

Clinic Page 20

Answers to Your Computing Questions. HOME-OFFICE COMPUTING's technical staff answers readers' computing questions about shopping for a hard-disk drive and finding the right side of printer paper.

Machine Specifics Page 22

Multitasking with OS/2; More Competition for HyperCard; The Apple II Means Business. Hardware and software news, opinions, quotes, and rumors reported by HOME-OFFICE COMPUTING's insider columnists on the IBM/MS-DOS, Macintosh, and Apple II universes.

Working Smarter Page 46

Don't Take No for an Answer. For a home-based businessperson, the dirtiest word in the world is no. Columnists Paul and Sarah Edwards offer six tips to overcome your fear of rejection.

Workstyles Page 104

My Office, My Castle. Telecommuting senior editor Nick Sullivan shares his fantasies about the perfect home office and describes the inner workings of his own home-office Xanadu.

#### DEPARTMENTS

Editor's Note

Page 10

Page 8

Letters
Up Front

Page 14

News, advice, tips, and a shot of humor on computing, using home-office technology, and running a home business. *This month*: Reports on wireless LANs and optical reading devices, a new 60,000-item fax directory, S.B.A. hot line heats up, and HOME-OFFICE COMPUTING takes to the airwaves.

Word Processing Page 26

MacWrite II vs. WriteNow 2.0. Two of the leading Macintosh word processors, MacWrite II and WriteNow 2.0, go head to head in a battle of features and finesse. The victor? It all depends on what you need.

Desktop Publishing Page 30

Help! Part I. As practitioners of a relatively new art, desktop publishers don't have a lot of resource material available to them. In this first part of a two-part series, contributing editor Steve Morgenstern recommends two excellent DTP reference books for your bookshelf.

Databases Page 36

The Database Meets Desktop Publishing. Once faced with the problem of turning mountains of information into attractive printed material, publishers of catalogs and directories can now solve this problem by linking desktop publishing and database functions.

Telecomputing Page 38

Fax It by Modem. A number of on-line services now provide some sort of fax/e-mail interface. How effective are these services? How expensive are they? Here, HOME-OFFICE COMPUTING takes a look at MCI Mail, Western Union's Easylink, and Xpedite.

Business 101 Page 44

Finding the Right Employee: Part I. Home-based businesspeople have some very special considerations to weigh when hiring an employee. Part I of this two-part series on hiring gives some tips for the preliminary stages of an employee search. Plus: How to write a classified ad.

**Best-Selling Software** 

Page 82

**Home-Office Shopper/Classifieds** 

Page 98

**Advertiser Index** 

Page 103



'286/SS

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PC Magazine, May 30, 1989

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The selection of ZEOS over IBM, Compaq and all others is a direct reflection of our goals and objectives. Simply, to deliver to you the very best *value* in computing today. To further quote *PC Magazine*:

"Price is always a consideration. So are benchmark results. But both factors can be deceiving, which is

why we consider other aspects that will make the difference months and years down the road. Things like quality of construction, reliability, expandability and ease of service."

These are the qualities PC Magazine used when selecting ZEOS over 57 others. These are the qualities we build into each and every ZEOS system. And that's our commitment to you. To quality. To performance. To reliability and support. To *Value*. Comparing ZEOS to virtually every other manufacturer in the world *PC Magazine* called it "overall excellence."

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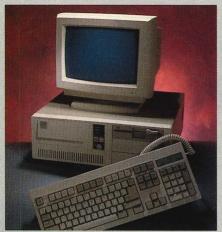
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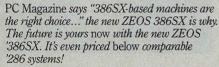
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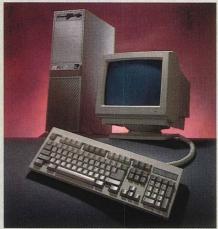
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CIRCLE READER SERVICE 46

# Independence— Can We Have It All Without Doing It All?

During the eighties I've watched several of my women friends go from day to day in a state of near collapse. I see a number of welleducated women struggling to have it allfulfilling job, good marriage, happy kidsby doing it all. I hear the exhaustion in their voices and see it in their faces, and sometimes sense that inside there's a steady, inaudible scream.

This is all too often the story of this generation's legions of Supermoms. And I fear that their plight is one that is shared with countless others in this Super Age. So many of us seem to be overworked, with too little time and too much stress.

No one is more susceptible to the struggling-to-do-it-all syndrome than the independent business owner, who soon after setting up shop discovers that independence comes at a high price.

I've become increasingly aware, during the past year, of how hard it can be to go it alone. In creating HOME-OFFICE COMPUT-ING, we are constantly reminded of the energy, knowledge, conviction, human and financial resources, attention to detail, ability to focus, and singlemindedness (it would be easy to keep going, but I won't) it takes to start a business and then keep it affoat.

Of course no one can explain an experience as well as the person involved. In fact, it was reading the opening of Steve Morgenstern's desktop-publishing piece this month, "Help! Part I" (see page 30), that made me choose this topic for my editor's note. Morgenstern writes, "Although I gave myself the title of president when I started my company, I'm actually the conductor of a one-man band." Then he goes on to point out some of the resources he's found that provide the help he needs.

And that is the answer: You may be responsible for it all, but you don't have to do it all. That's probably one of life's most important lessons. When we decided to publish HOME-OFFICE COMPUTING, we knew that, to a large extent, our success would depend CLAUDIA COHL on how effectively we could provide our EDITOR-IN-CHIEF

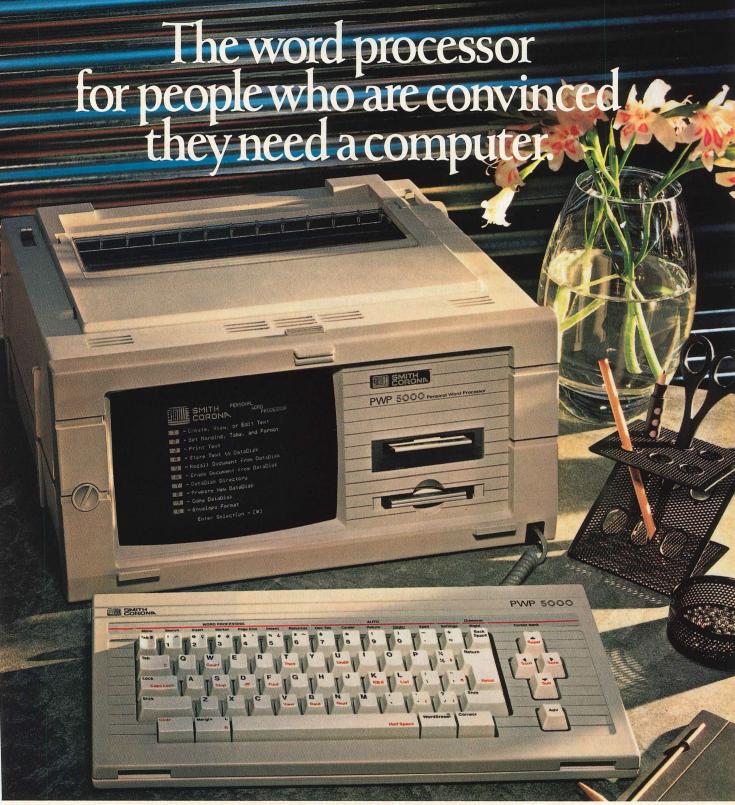


readers with the answers, resources, and help they need. We made a commitment to do some of the work you need done.

In this issue we cover two of the most important basics that the head of a new business faces: how to keep the books (see 'Which Is the Best Financial Software for You?" page 49) and what form your business should take (see "Should You Incorporate?" page 58).

At our regular editorial meetings we discuss our own ideas and review the suggestions sent to us by readers and freelance writers. We always try to see how we can provide more of that help. What business decisions can we help you make? Which products can we recommend to you? Where can you get good advice? What experiences can we share to save you aggravation, time, and money? How can we save you needless steps, help you make more sales, keep you from getting discouraged? How can we let you know you are not alone? This is our mission—to help you with yours.

laudia Cose



So, you're absolutely certain you need a computer. The odds are very good you absolutely don't.

The fact is, over 70% of the people who go to all the expense of buying computers and all the aggravation of trying to figure them out end up using their computers mainly for word processing and spreadsheets. Both of which, you'll be happy to hear, can be done more easily and economically on a Smith Corona PWP 5000 Personal Word Processor.

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for starters.

So if you've been thinking about a computer, think again. You see, the PWP 5000 is not only going to change the way a lot of people write. It's going to change a lot of minds as well. THE INTELLIGENT ALTERNATIVE TO THE PCT

#### **TOO LITTLE? JUST RIGHT?**

I am in the market for a 2400-baud modem, and, while browsing at the local newsstand, I came across HOME-OFFICE COMPUTING. I opened it up and saw a picture of the Evercom 24E, the modem I was seriously considering buying (''2400-Baud External Modems Help Data Move Faster,'' June 1989, page 64). I purchased the magazine without looking further. That proved to be a mistake. If I had looked further I would have discovered problems with your coverage.

The Hardware Miniguide should be renamed Hardware *Microguide*. Out of two pages devoted to reviewing three products, one page was devoted to practically useless information: "The higher the baud rate the faster the data is transmitted. . . . An external modem is contained in a separate desktop enclosure." Are you naive enough to think that someone running a home office doesn't already know 99 percent of the information on page 64?

The next page was supposed to be a review of three modems: About 100 words were written on each unit. Henry Beechhold didn't even have to plug in the modems to write the reviews; all the useful information could have been obtained from the chart at the bottom of the page.

A. PAUL MULLER Baton Rouge, Louisiana

I just started subscribing to HOME-OFFICE COMPUTING and find it to be the best computer magazine on the market. The information in your magazine is more understandable and useful than in most other publications. The reviews of the latest computer and software technology are exciting because they are presented in layman's terms that those of us with limited computer knowledge can understand.

Thank you for printing a magazine that will help me along on the difficult transition to home-office computing.

CASEY V. BURRIOLA
CASEY BURR ENTERPRISES
Fort Stockton, Texas

I am impressed!

What came about because of a magazine-sales promotion has knocked my socks off. I had never heard of HOME-OFFICE COMPUT-ING but hoped I would be able to pick out a few useful things for my soon-to-be-at-home business. I imagined it would be like other computer magazines I had read: half jargon newsletter, to retail discount my own. (I've used a Mac Plus for about a line service.

year and love it—I love Quark XPress, too.) I've tried to get useful information from those other magazines, but I was unsuccessful.

But, voilà! I've only read about 16 pages of your magazine, and I already feel like I've learned something. My enthusiasm to start an exciting business from home is at a new high. I can't wait to read the rest of the magazine, buy my own computer, and start working from home.

Thanks again—I am impressed.

LINDA C. SOETHE CREATIVE IDEAS FOR YOU Sumner, Washington

#### **HOLA. GUADALAJARA!**

I am a computer-science student at the Universidad Autonoma de Guadalajara. I first became interested in your magazine when I read the September 1988 anniversary issue, "The New American Dream: Working on Your Own." Since then I have been a loyal reader.

I attend school during the day, and, in my free time, I do computer work from my apartment for two lawyers, one accountant, and two other companies. Now, I am my own boss—I take work when I want it, and there's always lots of it.

This is my last semester, and I've decided what I want to get into next—desktop publishing.

DTP has been on my mind constantly because it would be a new area of work in Mexico.

Information on DTP is nearly impossible to find here, and I wanted to thank you for your magazine's recent coverage of the subject.

FERNANDO GIRON BAYON Guadalajara, Jalisco, Mexico

EDITOR'S REPLY: Keep reading HOME-OF-FICE COMPUTING and be sure to read this month's Desktop Publishing department (page 30). In Part I of a two-part series on where desktop publishers can find help, author Steve Morgenstern recommends two excellent reference books specifically geared to DTP. You may also want to contact the National Association of Desktop Publishers, Museum Wharf, 300 Congress St., Boston, MA 02210; (617) 426-2885. This independent organization provides a wealth of informative publications, including a quarterly journal and a handsome bimonthly newsletter, to its members as well as offering retail discounts and access to the GEnie on-

#### **GET BACK (ISSUES)**

In a recent Letters section of HOME-OFFICE COMPUTING, a reader responded to the article "Which Database Is for You—Flat File or Relational?" from the October 1988 issue (page 64).

How can I obtain a back issue of your magazine? How much does one cost? I am especially interested in the article mentioned above.

MICHAEL L. MIDEIROS Fort Riley, Kansas

EDITOR'S REPLY: For back issues, send a list of the magazines you want and a check or money order for \$4.25 per issue to HOME-OFFICE COMPUTING, 730 Broadway, New York, NY 10003. Attention: Andrea Fullwood.

#### CORRECTION

HOME-OFFICE COMPUTING'S August Buyer'S Guide to Answering Machines ("The Best Answering Machines for Doing Business," page 55) included a photograph of the wrong product. The telephone pictured on page 57 is AT&T'S Model 5500 cordless telephone—it is not the Model 1521 answering machine/telephone unit detailed in the article. The correct machine is pictured below.



AT&T's 1521 answering machine/telephone.

HOME-OFFICE COMPUTING looks forward to letters from all readers. Please direct correspondence to Letters to the Editor, HOME-OFFICE COMPUTING, 730 Broadway, New York, NY 10003. Include name, address, and telephone number. Letters become the property of HOME-OFFICE COMPUTING and may be edited for length and clarity.



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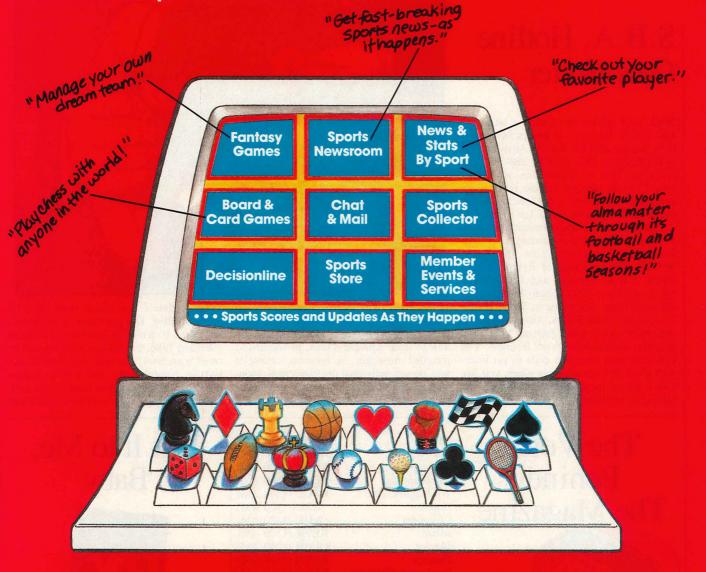
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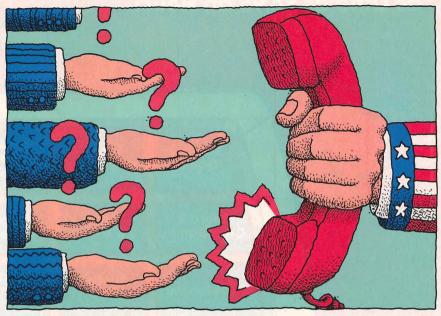
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#### **EDITED BY KAREN KANE**

#### S.B.A. Hotline Gets Hotter

Need quick advice on starting a business? The Small Business Administration can help. Simply dial the S.B.A. Answer Desk in Washington, DC, at (800) 368-5855 and select the type of information you need. This 24-hour, toll-free hotline receives an average of 1,000 calls a day; and usage has increased 250 percent in the last year.

Prerecorded messages present advice on five topics. Choose from Starting Your Own Business, Financing Your Business, SCORE (Service Corps of Retired Executives), S.B.A. Services and Local Assistance, and Facts About Small Business and Business Data. According to Susan Walthall, director of the S.B.A. Answer Desk, 90 percent of callers select Starting Your Own Business and Financing Your Business. You can enter your own area code to get information on services available where you live and a list of local telephone numbers for individual assistance.



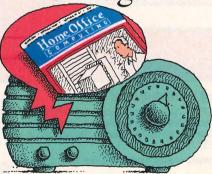
Station

WVNN (770 AM)

The hotline's advice is clear and easy to follow; it includes such information as the steps you should take to start a business and how to write a business plan. In addition to recorded messages, a business counselor will answer individual questions from Monday through Friday, 9 a.m. to 5 p.m. eastern time.

The hotline's facts about small business are fascinating. Did you know, for instance, that of the 10.6 million jobs created between 1980 and 1986, 6.6 million were created by small businesses? For more facts and figures and for helpful hints, the S.B.A. hotline may have the answers you need to start your business rolling. -GWEN SOLOMON

#### The Voice Behind The Magazine



For quick tips on technology and running a business, tune in to HOME-OFFICE COM-PUTING's editor-in-chief, Claudia Cohl, every Sunday night on "The Home Office Show," a radio talk show on the Business Radio Network cohosted by Paul and Sarah Edwards. Cohl will offer five minutes of helpful advice on technological and business issues for people with home offices. The hour-long show airs at 10 p.m. eastern time (9 p.m. central, 8 p.m. mountain, and 7 p.m. pacific) on the following stations:

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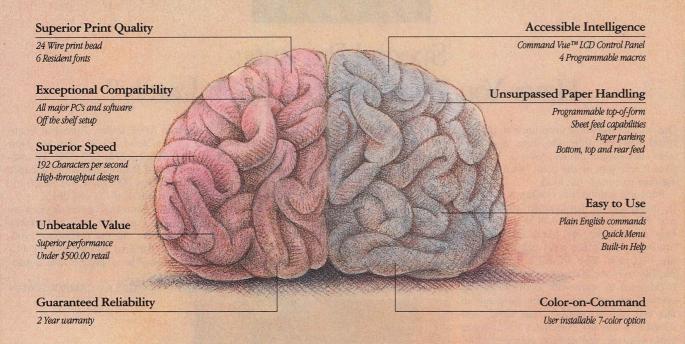
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#### Fax It to Me, Baby



The next time an important client tells you to "fax it right away," you'll have the number close at hand with the new Columbine Fax Directory. It includes more than 63,000 fax listings for North American small businesses, corporate headquarters, professionals, government offices, organizations, hotels, publications, radio and television stations, and more. Organized alphabetically, the 346-page directory sells for \$12.95 plus \$2.50 shipping and handling from Columbine, Inc., P.O. Box 974, Blue Hill, ME 04614; (207) 326-9780 voice or (207) 326-8639 fax.



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CIRCLE READER SERVICE 4

# Special Pursuits: Have You Listened to a Book Lately?

One woman uses it to keep up with professional journals while she irons and does other household chores. Stevie Wonder takes it with him on the road. What is it? A machine that reads out loud.

For some individuals, reading is physically impossible or frustratingly difficult. A new PC-compatible product is available to help people who are blind, dyslexic, or handicapped in other ways that make reading difficult. The PC/KPR (\$4,000 to \$8,000) from the Xerox/Kurzweil Company is designed to work with available speech synthesizers and screen-reading programs so that text can be scanned, read aloud, and stored as a text file. It includes a PC plug-in card, software, and desktop scanner and requires a 640K IBM PC computer with a hard-disk drive and DOS 3.0 or higher.

The company also offers a more portable stand-alone device containing character-recognition software and a small 18-button keypad called the Kurzweil Personal Reader (\$8,000 to \$12,000). The Personal Reader, introduced in early 1988, weighs about 20 pounds with the hand-held camera and another 30 pounds when the automatic scanner is added.

For more information, write to the Personal Reader Department, Kurzweil Computer Products, 185 Albany St., Cambridge, MA 02139; or call (617) 864-4700 or, outside Massachusetts, (800) 343-0311.

Several loan programs make it possible for people with disabilities to purchase this high-quality equipment. For more information write to Mark Uslan, American Foundation for the Blind, 15 W. 16th St., New York, NY 10011; (212) 620-2041. Or contact the Bank of Boston, Consumer Finance Department., Box 296, Mail Stop 99-26-11, Boston, MA 02104; (617) 434-2915.

While prices for text-scanning devices are coming down, it may be a while before they are commonplace. In the meantime, products like the Personal Reader and the PC/KPR are invaluable to anyone with a reading disability.

—SHIRLEY CAMPER SOMAN



Albert Gayzagian, an executive with a major Boston insurance company, uses Kurzweil's PC/KPR to help him access his computer files.

Wireless LAN: No Assembly Required

Transferring information between computers can be cumbersome. Sure you can pass disks back and forth if you don't mind the extra arm work. Or, you can spend thousands of dollars on a Local Area Network (LAN) and risk breaking your neck by tripping over the spiderweb of wires strung between equipment.

Now there's a new networking solution for the home office. The grass is greener if you have a LAWN—Local Area Wireless Network—from O'Neill Communications, Inc. As the name implies, the LAWN doesn't require any physical connection between computers, but instead works like a two-way radio. The heart of the LAWN is a radio transceiver (about the size of a modem) connected to your computer's serial port. Three types of transceivers are available (for a computer, printer, and modem), and each retails for \$495. The LAWN has an operating range of 100 feet indoors and 500 feet outdoors.

LAWNs make it easy to set up a network with your next-door neighbors or between the equipment in your home office, for example. You can travel with a laptop and easily update your desktop computer with



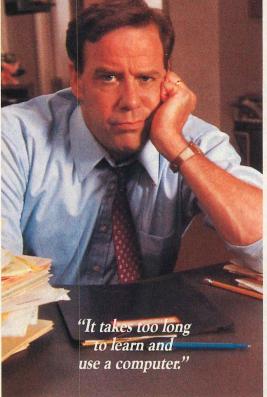
"When you come over, bring your computer. We'll sit around and swap data."

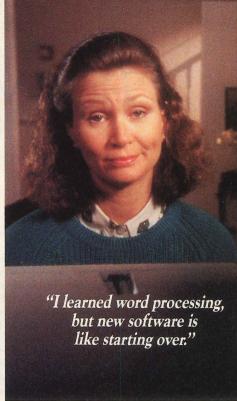
new information when you return. And, because your home office doesn't have to be confined to a single location any more, you can spread out on the LAWN. Take a portable outside on a beautiful day, put a computer in your bedroom to record late-night

inspirations, or share a laser printer with someone on your block.

For more information, contact O'Neill Communications, Inc., 100 Thanet Circle, Princeton, NJ 08540; (800) 624-5296 or (609) 924-1095. —STEVEN C.M. CHEN







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# "How Much Should I Charge My Clients?"

#### BY JOANNE PRATT



ShopTalk's second anniversary is an appropriate occasion to thank you for your letters. The many suggestions you offer in response to the questions here are as important as the questions

themselves. Here are a couple recent ones:

- There was a lot of feedback to James Sarnowski's inquiry about the import-export business in the June column. Bruce James, president of a 4-year-old home-based business, Jamport Exchange International, Inc., Atlanta, Georgia, recommends that Sarnowski start a mail-order business. First, he suggests, find a product that is not in great supply, then survey the market to find out whether or not it will sell. Try to get local retailers or wholesalers to give initial orders.
- Nigel Allen, owner of Allen Telecommunications Policy Consultants in Toronto, Ontario, offers a tip to consultants or business owners who need consulting help: Trade directories for specific industries are listed in *Directories in Print* (Gale Research Inc., 835 Penobscot Building, Detroit, MI 48226; [313] 961-2242), which is available at the public library. Consultants can be listed for free in the more general *Consultants and Consulting Organizations Directory*, also published by Gale.
- Q. I do some computer work for local individuals, businesses, and institutions, primarily designing and printing fliers and handbills, and some word processing. I am fully equipped with desktop-publishing, graphics, word-processing, and telecommunications software. This is not my main profession.

Some of my clients offer to pay, but others take it for granted that I'm doing it for fun. I haven't the slightest idea how much to charge. I prefer not to charge by the hour because I want to be able to take my time. Can you recommend a per-page fee for desk-top publishing of text and graphics? I do a master, the client handles printing.

JERRY INGRIM Buhler, Kansas

A. You have two challenges: getting your

clients to start paying for a "free" service and setting your rates. Have you considered setting up a formal part-time business instead of continuing with this quasi business? Choose a company name. Design letterhead and business cards to announce your new business to current clients.

Estimate your cost per job based on the amount of time the work will take. You can get a good idea of the going rate by posing as a prospective customer and calling local competitors for price estimates on similar jobs. I suspect that \$25 to \$100 per master is the most you can charge clients who aren't used to taking you seriously.

Q. Can you recommend software for developing custom business-application programs for individuals and small to midsize businesses? I am looking for something that will allow me to design custom screens and menus. Can I use Ashton-Tate's dBase III Developer's Edition, or is there a better choice of software? I have an IBM AT clone with a 20MB hard-disk drive, an Okidata printer, and experience with dBase III.

MEL THOMPSON Copperopolis, California

A. If you hadn't mentioned your prior work with dBase III, I would have recommended that you look at Borland's Paradox, a dBase competitor that has received favorable reviews. Borland claims that Paradox is faster than dBase in many operations, and I found the Paradox manual easier to follow. But if you would prefer to stay with familiar commands, you'll be pleased to hear that dBase IV is much easier to use than dBase III. An applications generator accessed from the Control Center makes it possible to set up many applications without programming.

You will be able to serve your clients well with either program. Less-expensive programs are not usually as powerful as these fully relational databases.

Q. In my opinion, your publication doesn't give enough advice on starting a business with a computer for people who don't have college degrees. My Amstrad PC and portable computers. modem. and Toshiba 24-pin

printer are a \$3,500 investment that I don't know what to do with.

Admittedly, I have a diverse background. I've done credit-collections accounting research, advertising, and am now in the automobile service industry. I make more than \$47,000 a year now, but the hours (and management aggravation) aren't worth it—I'd like to work for myself. Where can I go from here?

ANDREW ALEXANDER North Bergen, New Jersey

**A.** You probably know plenty about subjects on which most people are woefully ignorant: how to get credit and how to get trustworthy car service. Let me pass on two business possibilities from the Dallas area:

Elsie Allen parlayed her automobile sales experience into Auto-Know Consulting Services. She teaches buyers how to get the best deal on a car through personal consultation and workshops. (See my article, "Where Women Can Get Business Know-How," on page 47 of the May 1989 issue.)

Debbie Lightner and her husband, Nick, operate the Homeowners Referral Service. They publish a directory of reliable service businesses and distribute it in affluent neighborhoods. They check out plumbers, electricians, and other service businesses; then the businesses pay a monthly fee to be listed. You could develop a similar business in your town.

In addition, take a look at "The Hottest Franchises for the Home-based" in the June 1989 issue (page 41). The Guide to 50 Franchises You Can Run from Home section is chock full of ideas.

#### SEND US YOUR HOME-OFFICE QUESTIONS

Send your questions on taxes, legal issues, developing a business plan, capitalizing, marketing and public relations, or any other business-related issues to Joanne H. Pratt, c/o ShopTalk, HOME-OFFICE COMPUTING, 730 Broadway, New York, NY 10003. Name, address, and telephone number must be included on all correspondence. Pratt is a nationally known researcher, consultant, and speaker on the subject of home business.



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# Buying a Hard-Disk Drive: Five Pointers

#### BY STEVEN C.M. CHEN AND MICHAEL D. ESPINDLE

Q: I bought my current PC clone system sans a hard-disk drive to save some money and am now ready to upgrade and install a hard-disk drive.

Can you offer any pointers? Is there anything I should know that I won't find in my owner's manual?

RON MARANS

Brooklyn. NY

**A:** Here are some general tips to consider when shopping for a hard-disk drive:

1. Educate yourself. Hard-disk drives come in a variety of physical formats, feature different storage capacities and access speeds, and require different kinds of hard-disk-controller cards. The kind of drive you purchase depends on what you need to be able to do and what your system can handle.

Format. The hard-disk media itself can come in either 3.5- or 5.25-inch format. The physical size of the disk doesn't have a lot of bearing on the product's performance, capacity, or reliability. A 3.5-inch hard-disk drive simply requires less power to operate.

Disk capacity. Standard hard-disk capacity is 40MB for 286- and 386-based computers; 20MB for PC and XT compatibles. However, you should purchase a large-capacity drive (80MB or higher) if you anticipate doing a lot of desktop publishing or presentation-graphics work.

Access speed. The amount of time it takes to locate information on the disk is measured in milliseconds (ms). The lower the number, the faster the drive operates. The type of computer you have determines the fastest recommended access speed of your hard-disk drive. Make sure you buy a hard-disk drive with an access speed that doesn't

If you have technical questions or computer ailments that need diagnosis, our technical staff will try to help. Although we cannot answer each letter personally, this column will deal with frequently asked questions and common problems. We reserve the right to edit letters for length and clarity. Please include your name, address, and phone number with all correspondence. Send your letters to Clinic, HOME-OFFICE COMPUTING, 730 Broadway, New York, NY 10003.

RECOMMENDED ACCESS SPEED					
Computer Type	Access Speed (ms)				
Standard PC	65				
8/10 MHz 286-based	40				
12/16/20 MHz 286- or 386sx-based	28				
20/25 MHz 386-based	19				
33 MHz 386-based	13				

exceed the specifications in the table.

Hard-disk controller. A hard-disk controller is the internal card that regulates the operation of the hard-disk drive. Generally, 286 and 386 systems come with a hard-disk controller installed. Check your manual to make sure your system came with a hard-disk-drive controller as standard equipment. You can only add a controller card if you have a free expansion slot.

ST-506/412-MFM and ST-506/412-RLL are the typical controllers for MS-DOS computers. MFM devices are more common, but RLL drives offer better performance and a larger storage capacity.

The newer types of hard-disk controllers, Enhanced Small Device Interface (ESDI) and Small Computer System Interface (SCSI), are generally found in 386-based computers with hard-disk capacities greater than 40MB. These controllers are expensive, but they offer still better performance.

**2.** If you have an early-model 8086- or 8088-based computer, your system may not support a hard-disk drive. If your manual does not mention hard-disk installation, chances are your machine is not hard-disk-drive ready.

If this is the case, you can either get a ROM upgrade from the manufacturer or, if you have the available expansion slots, consider buying a hard card, which combines a 3.5-inch hard-disk drive and a controller card on a single circuit board.

3. Make sure you have room for a hard-

disk drive. Your manual probably refers to space availability as the number of bays in your system. Most desktop 286- and 386-based computers have room enough to add two hard-disk drives. Small-footprint models may have room for only one hard-disk drive.

For small-footprint two-floppy PC and XT compatibles, you may have to sacrifice one of your floppy-disk drives to make room for a hard-disk drive.

- **4.** If you have a low-wattage power supply (lower than 100 watts), you may not be able to add a 5.25-inch hard-disk drive. If faced with this situation you can either upgrade to at least 150 watts, install a 3.25-inch hard-disk drive, or install a hard card.
- 5. If you don't install DOS version 3.0 or higher on your system, you may be limited to a 20MB hard disk. Most earlier DOS versions may not be able to address more than 20 MB of storage. ■

#### **RIGHT PAPER, WRONG SIDE**

A friend of mine called recently, complaining about the quality of the output from her laser printer. The text was not as sharp as it was the day before, and she was wondering what had happened: Was it possible that her printer broke overnight?

After a brief technical question-and-answer session yielded no clues, I asked her if she was using the right side of the paper. "Is there a right side?" she asked.

Yes, most paper has a right and wrong side—a little-known fact that is particularly pertinent to printing. In fact, if you use a Hewlett-Packard DeskJet, the difference can be dramatic. One side of a sheet of paper is constructed to capture ink more readily than the other. My friend had loaded the paper the wrong way.

The right side is easy to spot on good bond paper. If you hold a sheet up to the light, you should be able to read the manufacturer's watermark—you want to print on that side of the bond.

Check the label of the package to determine the right and wrong sides of bulk, office-style copying paper. There should be an indicator specifying which side is better for printing.

—S.C.

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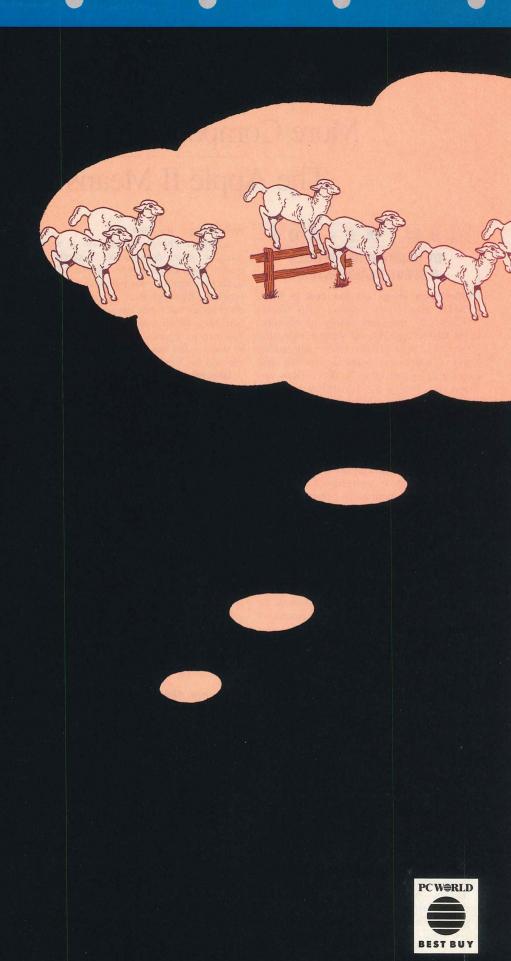
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### Multitasking with OS/2

### More Competition for HyperCard

#### The Apple II Means Business

#### IBM/MS-DOS

#### BY HENRY F. BEECHHOLD & STEVE MORGENSTERN

OfficeVision brings out the best in OS/2. IBM's new OfficeVision/2 LAN Series (\$750), an integrated family of network-compatible applications written especially for OS/2, does all the fancy multitasking you've heard was possible with the new operating system (there's also a DOS version that sells for \$210). IBM designed the programs to let you compute while the software busily performs several other tasks in the background.

OfficeVision—which includes electronic mail, text editing (not a full-featured word processor, although DisplayWrite can be integrated for more sophisticated word processing), communications, phone dialing, an electronic address book, file management, and a database—helps you keep track of simultaneous activities with pop-up windows. You could, for example, compose a business letter while the software was printing another document and looking up a number in your electronic address book. You can achieve a similar environment using various add-ins, but it's a patchwork business at best.

If you've got the hardware and you don't need a spreadsheet, then this mouse-compatible package could be worth its hefty price. After all, multitasking is what those big, impressive machines were made for, isn't it?

Surveys and questionnaires made easy. If you're looking for the right tools for market research (or other work employing surveys and questionnaires), take a look at *The Survey System* (Creative Research Systems; \$500 for core program), a statistical package created specifically for developing this kind of data. You could easily use this program as the foundation for a market-research business or to expand the services of an existing business.

The program creates questionnaires from your input and statistically evaluates responses—providing charts and tables that can be printed out for formal reports. The program is menu and prompt driven, and you need only one run through the brief

tutorial to get the hang of it.

Although *The Survey System* is expensive, it offers considerable potential for profit. You can get a demo version for \$50, deductible against your purchase of the core program. Although there are numerous addon modules that range from \$40 to \$200, the core may be all you'll need. However, if you want to organize and print out responses to open-ended questions, for example, you can add the Verbatim Module (\$100).

Integrated Bliss. The Secretary Bird (named after Sagittarius serpentarius, an African bird, and a member of the hawk family) is a clever integrated program that includes a spreadsheet, word processor, database, and file manager at an almost unbelievably low price (The Software Toolworks; \$60). It allows for text files as big as your computer's memory will permit, spreadsheets as big as those in Lotus 1-2-3, and databases limited only by disk space.

The Lotus-compatible spreadsheet is loaded with goodies, including all the common Boolean, financial, and statistical functions. The word processor supports most printers and provides a spelling checker. You can quickly snip data from one application and paste it into another. You can also import files from and export them to any program that can read and write standard ASCII text. The manuals and the 200-plus pop-up help screens are first-rate; you'll be soaring with Secretary Bird in no time.

—H.B.

The new 486 chip will drive down 386 prices. I recently got my first look at a computer based on the Intel i486 chip (the 486 for short)—an upgrade to IBM's PS/2 Model 70-A21. The upgrade replaces the current 80386 processor with the new top-of-the-line Intel chip. Big Blue is calling the new configuration the 486/25 Power Platform and plans to release it by the end of the fiscal year.

What did I learn from the IBM demonstration? A 486-based computer is faster than a 386-based computer. How much faster? The real-world answer to that question is still up in the air, since there's a lot more to determining the actual operating speed of a computer than the speed of its central processing unit.

By the time the first 486-based computers

actually reach the shelves, you should be able to choose from models from all of the major manufacturers. Many of these machines will be built to take full advantage of the new CPU's speed. Even then, I won't be buying one any time soon, and I'm willing to bet you won't either.

Why? Because the dollars involved simply don't make sense for a home office. The list price of the IBM PS/2 Model 70-A21 with 2MB of memory and a 120MB hard-disk drive is \$8,995, and the upgrade by itself goes for \$3,995. Even with discounts and competitive pricing, 486-based computers are going to cost \$10,000.

The only silver lining? We need a new high-end system to drive down prices on 386-based machines. A 386 machine could be highly desirable in a home office for two reasons—it has the speed to handle graphics-intensive applications, such as desktoppublishing and CAD programs, and its superior memory-management capabilities make multitasking environments, such as *Desqview* and *Windows/386*, practical. And inevitably, when a new premium-priced performance level hits the market, manufacturers lower the prices on their former speed champions.

Eye Relief lives up to its name. SkiSoft Publishing Corporation, maker of the No-Squint Laptop Cursor, has come out with a new word processor for the visually impaired or laptop users who have problems reading the LCDs. Eye Relief (\$295) provides a range of enlarged type sizes both onscreen and in laser-printed hard copy. The unique program enlarges not only text, but also on-screen prompts and menus.

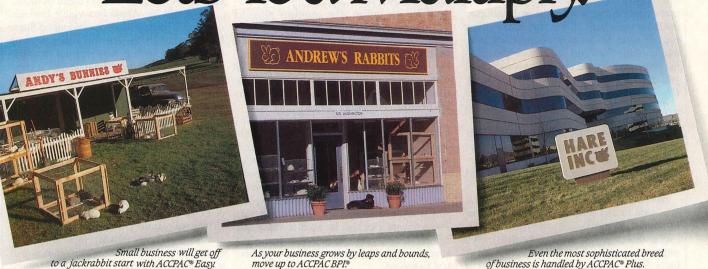
Eye Relief lets you choose from three levels of magnification—up to three times normal screen size. Instead of the standard 80 columns by 25 rows, you can display 33 columns by 7 rows of enlarged type. And even at the largest size, the screen display updates virtually instantaneously as you edit text.

—S.M.

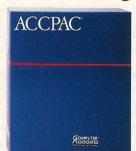
HENRY F. BEECHHOLD is the author of The Brady Guide to Microcomputer Troubleshooting & Maintenance (Brady Books, Prentice Hall Press, New York).

STEVE MORGENSTERN can be reached on CompuServe (ID: 72545,606) or MCI Mail (SMORGENSTERN).

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#### MACINTOSH

#### BY JIRI WEISS, JR.

Another program jumps on the Hyper-bandwagon. By the time you read this column, HyperCard (already threatened by the development of SuperCard, another stackgenerating application with its own programming language) may have a German competitor on its heels. The import, called Plus, shares SuperCard's \$199 price tag and other features, such as color and multiple, resizable windows. Like SuperCard, Plus can be used to develop applications that, unlike HyperCard, do not require the original program to run. This can be beneficial if you don't have megabytes of spare memory (HyperCard barely runs in 1MB).

To make *Plus* even more useful, Olduvai Corporation, the program's U.S. publisher, has added a text editor and a database. Other advantages over *SuperCard* are that *Plus* can open a *HyperCard* stack directly (*SuperCard* makes you convert the stack first), and it has an enhanced Home card.

Add sophisticated sound to your stacks. If you want to add sound to either HyperCard or SuperCard stacks (or to any other application that supports sound resources), you might try version 2.0 of Farallon Computing's \$249 MacRecorder Sound System, a kit that includes both a sound digitizer (with a built-in microphone) and sound-editing software.

The most significant changes over older versions are special effects such as reverberation, tempo, and the ability to play sound at different speeds without a change of pitch. And it's addictive: Once you try it, you'll want to sample everything from your dog's bark to your spouse's snore.

Scan in color. Color scanners are coming down in price, but still have a long way to go—especially if you consider the price of a color monitor, a printer, additional memory, and other hardware you need to create an entire color system. Microtek's new flatbed 24-bit color scanner, under \$4,000, will come with popular color and gray-scale image-editing software packages. The company claims its MSF-300Z can perform as well as any competing \$6,000 model.

At the maximum resolution of 300 dpi, the MSF-300Z can scan a letter-size page in color in a little less than two minutes. (It's slow because, like all color scanners, it has to make three passes over a page.) The scanner speeds up considerably when used at lower resolutions or in a gray-scale or monochrome mode.

Microtek recommends at least 4MB of memory and a Mac II to use the MSF-300Z. Because color files are very large, you'll probably also want a large hard disk.

If you can't justify the expense of a color

scanner, take a peek at *Chroma-32* (\$595; Discovery Software International, Inc.), a software package designed to be used with any flatbed gray-scale scanner. You simply scan the same document three times through red, green, and blue filters included with the package. *Chroma-32* automatically combines the files you save into one color image. The HP ScanJet and AppleScanner can be controlled directly from *Chroma-32*. With other scanners you have to use the scanner's own software and import the images into the utility. The company plans to add support for other scanners in the future.

You can take it (your Rolodex and date book) with you. If you are interested in taking your appointment diary and card file with you but don't want to lug around an IBM compatible, there are a growing number of Mac-compatible options.

Traveling Software offers a Macintosh interface (software plus cable) to the eightounce pocket-size Sharp Wizard electronic organizer (\$299). Software included with Wizard Link Mac (\$150) permits users to download data into an Excel spreadsheet or into HyperCard. It also imports and exports ASCII text to and from your word processor. The software can also be used to input and edit entries on your computer, so you don't have to use the organizer's limited alphabetical keyboard.

JIRI WEISS, JR., is a freelance writer based in Berkeley, Caifornia, and can be reached at MCI mailbox JWEISS.

#### APPLEI

#### BY CHARLES H. GAJEWAY

The Apple II means business after all. Okay, Apple II fans, I have a bunch of exciting things to write about this month. You are going to see this column rededicate itself to exploring the II as a general-purpose business computer, breaking away from the small-machine stereotype. Sure, the GS is pricey, and *AppleWorks* GS is disappointingly slow and clumsy. But that doesn't

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mean that Apple users don't want and need hard disks, expanded memory, and highperformance software to help their Apples meet their business needs.

Applied Engineering emphasized the point by introducing an integrated power supply and hard-disk drive for the IIe and GS, another power-user-worthy peripheral for Apple's namesake computers. In light of such introductions and ever-lower prices, adding a big, fast hard drive is becoming a must for Apple II users who mean business.

Proof that the Apple is a viable business machine—Barney Stone, president of Stone Edge Technologies, left me a nice note on CompuServe inviting me to try out the latest version of *DB Master Professional*—a complete revamp of a classic Apple database program. I just got the program, and it looks very exciting, offering both flat-file and relational capabilities, a direct upgrade path for data in *AppleWorks* or ASCII formats, letter-size word processing, and compatibility with all levels of Apple II equipment except for the Plus. I'll give you a hands-on report as soon as possible.

RAM on the Stock Exchange. Another bit of good news is that the Pacific Stock Exchange is planning to begin trading 256K and 1MB dynamic RAM chips as a commodity. This means that manufacturers will now be able to purchase contracts for future delivery of RAM on the open market, just as processed food manufacturers can lock in price and supply of future deliveries of agricultural products. Open-market trading of RAM will help equalize the supply and demand imbalances that caused memory prices to skyrocket last year and help make the products less expensive and more readily available.

Apple IIGS prices to stay high for some time. Rumor has it that Apple plans to delay the introduction of the anticipated low-cost Macintosh until early 1990. This means that a drop in GS pricing likely to accompany the new Mac will also be delayed, although Apple traditionally offers some kind of price break in December. The manufacturer, however, would neither confirm nor deny such reports.

I mentioned Barney Stone's note earlier in this column, and I occasionally get notes from readers on one topic or another. I enjoy reading your questions and comments and would really like to hear from you as I embark on my quest for Apple II power. Leave me e-mail at CompuServe (73357,3577) or GEnie (C.Gajeway). It can be anything—questions, complaints, tips, even compliments. Tell me what you need to know and want to see so I can keep this column as useful as possible. ■

CHARLES H. GAJEWAY can be reached on CompuServe (ID: 73357,3577) or on GEnie (ID: C GAJEWAY).

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### MacWrite II vs. WriteNow 2.0

#### BY BROOKS HUNT

# The Battle of the Mid-level Macintosh Word Processors

When I write something important—like a business letter, a report, or this review—I go through at least three steps.

The first time around, it's just to get my ideas down. As a result, there are many misspellings, and my sentences can often be improved.

My first edit targets clarity. I focus on sentence structure and make sure my ideas flow together.

During the final edit, I continue to work on flow, look for more felicitous ways to phrase my thoughts—and I examine the document's appearance. I often emphasize points with formatting. For example, I might indent a section, add boldfaced subheads, or place a bullet or asterisk at the beginning of important paragraphs. After all, I wouldn't want an unattractive page to get in the way of my message.

That's why I want a word processor that lets me write, edit, and format with ease.

MacWrite II and WriteNow—new versions of established word processors—fulfill this need. Each gives me features that make editing easier, like good search and replace, simple cut and paste, an excellent spelling checker, and easy paragraph formatting.

I know, most Mac word processors include such features. Actually, WriteNow and MacWrite II offer few, if any, unique features—just excellent designs and low prices (\$195 and \$249 respectively, with discounted prices much lower). Although both programs come with basically the same set of features, they implement them differently.

#### **HEAD TO HEAD**

Then what makes one stand out from the other?

The little touches. For example, *Mac-Write II* lets you add customized style commands to its style menu. If you routinely use underlined, 18-point boldfaced Avant Garde in headlines, say, you can add that choice—and nine others—to *MacWrite II*'s style menu to make it readily available.

WriteNow has always been known as a

## File Edit Wew Format Font FontSize

| Continue | Con

#### WriteNow

**VERSION REVIEWED: 2.0** 

SYSTEM REQUIREMENTS: 128K Macintosh (512Ke recommended); two drives (800K recommended; hard-disk drive optional); System 3.2 or higher

PUBLISHER: T/Maker Company, 1390 Villa St., Mountain View, CA 94041; (415) 962-0195

PRICE: \$195

OVERALL PERFORMANCE: ★ ★ ★

 $\frac{DOCUMENTATION: \bigstar \bigstar \bigstar}{ERROR HANDLING: \bigstar \bigstar \bigstar}$ 

EASE OF USE: \* \* \*

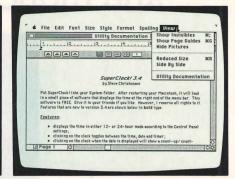
SUPPORT: ★ ★ ★

speedy program, and it continues to perform to expectations. Spell checking a 4,000-word-plus document took only 31 seconds. *MacWrite II* completed the same task in 39 seconds.

However, while *WriteNow* performed a search and replace on the same document in 2 seconds, *MacWrite II* took 16 seconds. The reason might be because *MacWrite II*'s search and replace is more sophisticated—it can be made attribute-sensitive, which means that not only can you specify the words you are looking for, you can also specify their font, size, and style.

Professional writers will be happy to know both programs count words. Write-Now does it directly, as a menu command, but MacWrite II counts words as part of spell checking, when it also tells you the number of questionable words in your document and their frequency. In addition to words, WriteNow will count a document's characters and paragraphs.

If you sometimes have difficulty thinking of just the right word, *MacWrite II* includes Microlytics's excellent *Word Finder* thesaurus—a dedicated version that will work only within *MacWrite II*. Although *WriteNow* 



#### MacWrite II

**VERSION REVIEWED: 1.0** 

SYSTEM REQUIREMENTS: 1MB Macintosh; two 800K drives (hard-disk drive optional); System 6.0 or higher

PUBLISHER: Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052; (408) 987-7000

PRICE: \$249

OVERALL PERFORMANCE: ★ ★ ★

 $\begin{array}{c} DOCUMENTATION: \; \star \; \star \; \star \; \star \\ ERROR \; HANDLING: \; \star \; \star \; \star \; \star \end{array}$ 

EASE OF USE: \* \* \*

SUPPORT: ★ ★

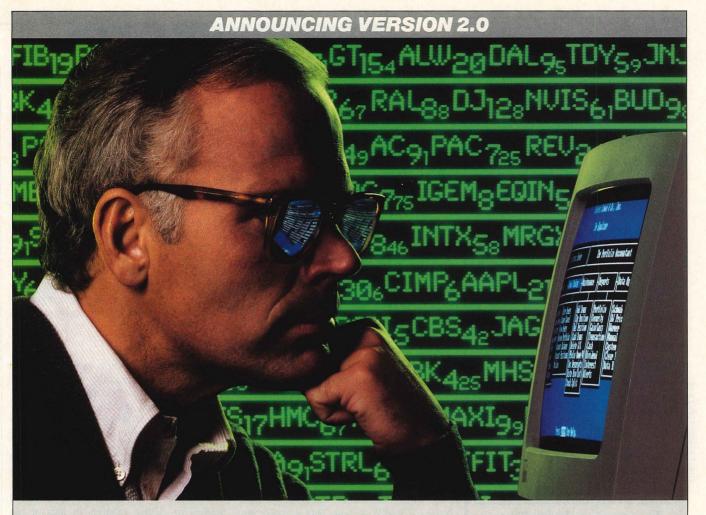
does not offer a thesaurus, you could easily purchase the normal version of *Word Finder* for the difference in price between the two programs.

#### **SEEING WHAT YOU'LL GET**

Both programs show you exactly what your printed copy will look like—the end of a page even looks like the edge of a sheet of paper. I found this particularly helpful in formatting, because I could easily see where different parts of a document would fall, and I could adjust the page by changing the margins or the material.

Both word processors have some good page-layout features, such as on-screen multiple columns that look exactly like your printed document. You can have up to four columns in *WriteNow* and up to ten in *Mac-Write II*. Since anything over four columns on an 8.5-inch-wide page is usually too congested, though, the difference is probably not significant. Once you specify multiple columns in either program, your entire document takes that format. Unfortunately, neither program lets you place a different number of columns on different pages within the same document (although there are small work-arounds for varying columns us-

BROOKS HUNT wrote about project-managment software in the May 1989 issue of HOME-OFFICE COMPUTING.



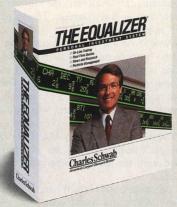
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#### WORD PROCESSING

ing headers and footers).

WriteNow lets you specify an additional margin for binding your work and will automatically alternate the binding margin if you plan to print on both sides of the page. Since you can specify margins for facing pages with MacWrite II, you can accomplish the same effect, but it isn't quite as elegant. WriteNow will also let you change all paragraphs with the same formatting, such as indenting all italicized paragraphs.

WriteNow places footnotes at the bottom of the page, above the footer, while Mac-Write II lets you put them at the bottom of the page or the end of the document. Both programs let you adjust the size of the headers and footers, as well as the size of the gutters, when your document has multiple columns.

#### **MAIL-MERGE EXCELLENCE**

Both WriteNow and MacWrite II include excellent merge functions. With either program, first you prepare your data document (the names of the fields you will use in the form letter and the individual entries for each field) and then your form (the body of the letter or other document with the field names in their appropriate locations). When you run either program's merge function, it replaces the field name with one of the data entries. For instance, a letter is addressed to Mrs. Smith instead of «Salutation» «Last-Name. Using WriteNow, data for entry into the form can also be input from the keyboard, or it can be the entire contents of another document.

Both programs permit conditional entries in mail merging. For example, you can specify that if the data field Account Status contains Current then the message "Thank you for letting us serve you" is printed; but if it contains Delinquent, the message "Your account is now overdue. Please pay at once" is printed.

WriteNow even lets you nest conditions, so that two or more must be satisfied before a message is added to a form letter. To use the delinquency example, if the data field Past Due is greater than four, a second message—such as "No new orders will be accepted until your account is current"would also be inserted. With MacWrite II, mail-merge conditions can be similarly combined with the Boolean operators and,

One advantage of MacWrite II over WriteNow: When you create your form letter, MacWrite II's merge command presents you with a list of data fields and commands. With WriteNow, you must remember the field names or look them up in the data document.

#### SIGNIFICANT DIFFERENCES

MacWrite II costs a bit more than Write-

Now, but it has more features. For example, MacWrite II can read MacPaint and PICT (MacDraw format) graphics files directly, but WriteNow must import graphics through the Clipboard or Scrapbook. This is a significant advantage of MacWrite II, because you don't need to quit your word processor, open a graphics program, move any graphic to the Clipboard or Scrapbook, and then paste the graphic into your document.

Once you've placed the graphic in your document, both programs let you scale it, but MacWrite II lets you do it more accurately by letting you specify a percentage. With WriteNow, you grab an edge of the graphic and shrink or expand the image. Only MacWrite II will let you crop a graphic. Once the graphic is in place, both programs will let you hide it to increase scrolling speed.

#### **REVIEW FACTORS**

Both programs feature excellent printed documentation, including quick-reference cards and well-structured manuals with tutorials and detailed reference sections. However, MacWrite II also has on-line help (in the form of a HyperCard stack, which allows you to modify it)—WriteNow does not.

The publishers of both MacWrite II and WriteNow corrected many of their earlier products' deficiencies. For example, the original MacWrite used to annoy me when I wanted to change margins in part of my document. I had to insert a new ruler for each change, which meant that when I was editing for appearance, I couldn't see what my document would look like and adjust the margins at the same time. This is no longer a problem. And the first WriteNow didn't support the arrow keys for moving around a document; now it does.

Neither program malfunctioned at any point, and both operated logically. If I tried to perform an illegal function or operation, an error box usually appeared, explaining what was wrong and suggesting how I could correct the problem.

When it came to technical support, it was much easier to get through to WriteNow's staff than to MacWrite II's. However, when my calls were answered, both staffs responded to my questions well.

#### A WIN-WIN DECISION

If you need a basic Macintosh word processor, you can't go wrong with either program. MacWrite II handles graphics somewhat better than WriteNow, but WriteNow allowed me to wrap text around a graphic (through an undocumented, work-around solution). MacWrite II could read and write more different file formats, but WriteNow is less expensive. Which is best for you? That depends on your needs, but both will probably be able to satisfy them.



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# Help! Part I

BY STEVE MORGENSTERN



I started out as a book editor in a company full of busy people. Writers sent in manuscripts. Copy editors and proofreaders sifted out mistakes in the text I edited and in the proofs pre-

pared by an outside typesetting company. Art directors designed publications. Pasteup artists prepared mechanicals. Lawyers on retainer answered the copyright questions that came up. The production manager dealt with the printers. And the publisher made the deals and supervised the entire process.

Now that I'm an independent desktop publisher, none of those jobs has gone away—only the wealth of people to handle them. Although I gave myself the title of president when I started my company, I'm actually the conductor of a one-man band.

Inevitably, I needed help. Lots of it. There are simply too many specialities involved in the publishing process for anyone to be skilled at all of them based on his or her past experience. Some of that help continues to come from the service suppliers I deal with—particularly typesetting service bureaus and professional printers. I've found that even though I'm a small account for them, I get more than my share of invaluable assistance if I deal with outside specialists in a friendly, professional manner. Cultivate these resources, and pay their bills on time.

Fortunately, you don't have to consult your local guru every time a question comes up. There are plenty of off-the-shelf resources available to get you started quickly while providing a solid technical framework upon which you can build. This month I'll discuss two books I can recommend. Next month I'll look at learning materials based in other media: floppy disk, videotape, and audiotape.

#### **PUBLISHING ESSENTIALS**

The Electronic Publisher, by Diane Burns, Sharyn Venit, and Rebecca Hansen. This hefty book (466 pages) is an excellent gen-

STEVE MORGENSTERN creates many types of publications using both MS-DOS and Mac DTP

#### Two Good Guides to the **Basics of Publishing and Page Design**



eral resource not only for computerized page makeup, but for the entire publishing process. And that covers a lot more than just using desktop-publishing (DTP) software.

Remember the list of jobs at the beginning of this column? The Electronic Publisher deals with all of them-not in enough depth to make you an expert, but with solid grounding in the basics, lots of useful tips, and enough background to enable you to speak intelligently with the experts if the complications of a project demand it.

The book is divided into four main sections:

The Publisher's Task. In addition to sketching The Big Picture—the specific jobs that need to be done and who is going to do them—these chapters discuss legal questions important for anyone putting ink to paper. How much can you quote from a printed source without getting permission? What are your rights to use images from other sources? There are sample contracts for hiring freelancers, along with scheduling and pricing guides to help you make reasonable time and money estimates.

Design for Desktop Systems explores typography and page layout. The explanation of basic terms and concepts is clear and comprehensible, and the highlighted Rules of Thumb will serve you well (one handy rule says that the optimum width of a line of text is equivalent to 60 characters of the specified font, style, and size).

**Production** covers text processing, illustration, and page composition. After you've figured out what the publication is supposed to look like, this section advises you on how to get the job done. That means everything from proofreading (a chart of standard proofreader's marks is included) and unraveling the intricacies of illustration to techniques for making all your material fit in the space available.

Beyond the Desktop takes you through printing and binding. After you've read this material, you'll not only have a good idea of what's possible and what you might want from the printer, you'll also understand the production stages at which your project can and should be checked.

Taken as a whole, this book contains the kind of information I've picked up piecemeal over 15 years in publishing. Clearly the authors have gone through the same kind of in-the-trenches training; they've done an impressive job of gathering the essentials in a single volume. Until I write my own book on the subject, this is the one I'll recommend to newcomers.

#### **FUNDAMENTAL DESIGN**

Looking Good in Print, by Roger C. Parker. Like a lot of desktop publishers, I started out as a "word" person. Until this new technology arrived, I'd write or edit a manuscript, then hand it over to a graphic artist and wait eagerly to see what the Muse of Design sent back.

Now that it's possible to do it all on the desktop, the temptation to design it all myself is undeniably strong. In my business, I make a project-by-project determination. For example, I edit a Macintosh computer magazine and use DTP to produce the typeset pages. I don't do the publication design myself, though—it's a full-color production with a substantial budget, so a professional art director designs the magazine. He hands me pencil layouts, which I follow when



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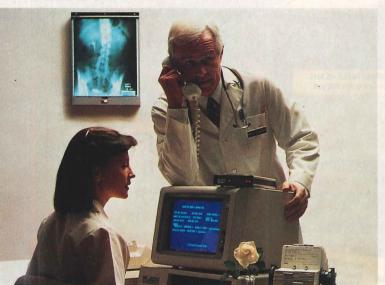
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maker is.

#### DESKTOP PUBLISHING

putting the pages together on my computer.

On the other hand, when a client with tight financial constraints wanted a fourpage newsletter, I handled the design myself and the results looked just fine. I look at it this way: I own a pair of scissors, but that doesn't mean I cut my own hair. At the same time, I don't go running to the barber shop every time my beard needs a trim.

On that note, budding DTP designers will get off to a good start with Looking Good in Print, a guide that is light and easy to read yet thought-provoking. Author Roger C. Parker (who also wrote The Aldus Guide to Basic Design) starts out with a discussion of the basic principles of design, such as coherence, proportion, direction, and contrast. He then offers a practical tactical approach to design. Parker explains design in a nononsense manner, discussing "tools of organization" and "building blocks of graphic design." You'll learn how to use attractive graphic devices, such as the borders and tint blocks your DTP software provides, to add clarity and eye appeal to a publication.

The author also tries to train the reader to see pages through a designer's eye. As you become more sensitive to the effective use of white space, you become less likely to cram too much on a page. Similarly, the classic DTP flaw of using too many typefaces in a single publication is discussed and illustrated well. The only soft area is the section on illustration (an element that can make or break a design), which is given short shrift here.

The chapter "Ten Common Design Pitfalls," however, is right on the money. Equally strong is the extensive section of design make-overs. The before-and-after comparisons cover everything from business correspondence to brochures, newsletters, and advertisements, with annotated illustrations. The examples aren't flashy or especially innovative—just good solid design, which is far more appropriate for educational purposes. In one flier that uses questionand-answer format, for example, Parker changes from a single-column layout to two unequal columns, one for the questions and one for the answers, which improves both the clarity and the look of the piece.

Although subtitled "A Guide to Basic Design for Desktop Publishing," Looking Good in Print has little to do with computers and plenty to do with effective layout. That's fine with me. After all, what do you want your readers to say when they pick up your printed piece-"Gee, what a nice piece of desktop publishing" or "Gee, what a nice publication"?

#### I'LL HELP YOU. TOO

One final source of help is worth mentioning-me. I'd be interested in hearing from you with DTP questions you'd like answered, or topics you'd like to see covered, in this column. Write to me care of HOME-OFFICE COMPUTING or contact me via e-mail on CompuServe (72545,606) or MCI Mail (SMORGENSTERN). ■

#### SOURCES

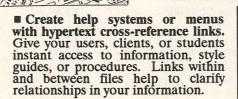
The Electronic Publisher, by Diane Burns, Sharyn Venit, and Rebecca Hansen (\$24.95). Brady/Simon & Schuster, 15 Columbus Circle, New York, NY 10023; (212) 373-8700

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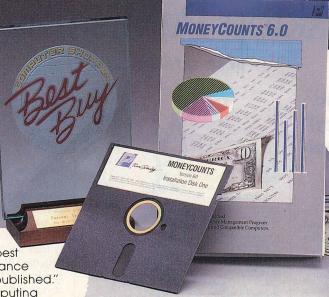
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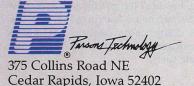
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# The Database Meets Desktop Publishing

# BY ROBERT KENDALL

# Reach Out to the Public (And Make Some Money) By Creating Professional-Looking Catalogs and Directories

For as long as file cards, typewriters, and copy machines have been around, membership directories and sales catalogs have sprung from the offices of organizations and small businesses. But before the computer age, putting those publications together on a small budget usually meant long hours of drudgery resulting in an amateurish-looking product that was seldom up-to-date.

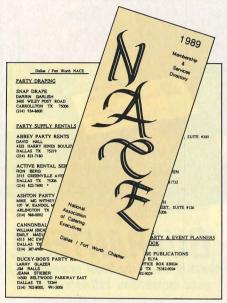
## WHAT IS DATABASE PUBLISHING?

Now, databases can put vast quantities of well-organized, up-to-the-minute information on paper with minimum effort on your part. And desktop-publishing (DTP) setups can turn just about any text into an attractive, suitable publication both quickly and inexpensively. Linking these two technologies has brought professional-quality catalogs and directories within easy reach of small businesses and associations and has even spawned a new product—and work—category: database publishing.

Practically any database can export records as ASCII text that a DTP package can read. This is perhaps the most common approach, and it's perfectly adequate for many needs. But it has some limitations. You'll typically have to manipulate the text after you import it, so that page breaks and type fonts come out the way you want them to. And whenever you update the publication, you have to repeat the whole procedure.

To overcome these drawbacks, some DTP programs let you create a live link between your document and database. Two examples are *Byline* and *dbPublisher*. Every time you update a record in your database, the DTP document is also effectively updated. So whenever you print an updated price list or membership directory, you won't have to revise the document itself.

ROBERT KENDALL, a New Jersey-based journalist, wrote about WordPerfect add-ons in the August 1989 issue of HOME-OFFICE COMPUTING.



Photographer Avi S. Adelman created the membership directory above by merging a database into Byline, a text-intensive desktoppublishing program.

### MAKING A DIRECTORY PAY ITS WAY

The endeavors of Avi S. Adelman exemplify the first, more traditional approach to publishing database output. As communications director of the Dallas chapter of the National Association of Catering Executives (NACE), Adelman produced the group's publications.

Although his work for NACE was unpaid, Adelman's full-time photography business benefited greatly. "The group was a good money-maker for me. I depended on the members to refer jobs at weddings or special events to me," he explains.

When Adelman joined NACE in 1987, he had just purchased an IBM XT, an Okidata dot-matrix printer, and the IBM Writing Assistant and Filing Assistant word-processing and database programs to help him manage his own business. Soon, though, he was using his database to print labels for NACE's mailings. A little later, his first experience with DTP convinced him that it was the way to go with the organization's newsletter.

Adelman tried friends' copies of *Page-Maker* and *Ventura Publisher* but balked at their complexity and hefty price tags. Then he came across *Byline*, a text-intensive DTP

program from Ashton-Tate with an attractive price (\$200). He learned how to use it within two weeks. In *Byline*, Adelman found all he needed to turn the NACE newsletter into an eye-catching publication. Then he turned his attention to the new 1988 membership directory, which presented a good opportunity to merge his database and publishing skills.

Adelman called a local printer and asked how much it would cost to print the directory from the copy Adelman could now create with the HP LaserJet Series II he'd recently acquired. "The printer said he would do it at very little over the cost of the paper if we put an ad in for him. I called the NACE treasurer, and she said, 'Give the back cover to the printer for whatever it costs to do the directory and let's sell ads.' And that started the whole thing getting bigger and bigger."

They ended up with an attractive 44-page book in an 8.5-by-11-inch format, which they mailed to members, other NACE chapter offices around the country, and local hotel managers who could draw upon the catering services of members. They sold so much ad space—at \$200 a full page—that they turned a \$2,000 profit after printing and mailing the 450 copies. And the response from members? "Everybody just went nuts," recalls Adelman.

This year's directory took on a sleeker 3.75-by-9-inch format after the chapter joined the Dallas Chamber of Commerce (see figure). The smaller size accommodates the Chamber's mailing requirements, and the Chamber now mails out the directory in response to inquiries.

### STEPS TOWARD PRINTING A DATABASE

Turning his database records into a polished book via *Byline* took some ingenuity on Adelman's part. First, he used his database to generate an ASCII text file of all member names and addresses. In that file, the actual data was preceded by the field name it came from, such as Address or Company. In the 1989 directory, Adelman wanted to set the company name, owner name, and address in different fonts. So, after he imported the text file into *Byline*, he used the program's search-and-replace feature to change those database field names into formatting codes that invoked the appropriate fonts.

# DATABASES

down the text file into smaller files—one page per file—to make the material easier to work with. Then he placed the text in the Byline document, leaving blank pages for the ads. After making sure page breaks fell HIGH-END DATABASE PUBLISHING in the correct places, he added the introduction and conclusion. Then he printed the book out on his LaserJet and sent it off to the printer.

Adelman prides himself on squeezing a great deal of work from his low-cost computer setup and finding creative ways around its shortcomings. "I'm a businessperson first, so I took what I had and ran with it," he said.

### **INSTANT UPDATES**

Byline includes a database-publishing feature that could have streamlined some of Adelman's work by creating a live link between his documents and a dBase-compatible database. However, this feature won't work with his current database, and Adelman doesn't believe its benefits would justify an investment in a new database. But he does think about moving up to dBase IV.

Byline's database-publishing feature works much like a simple database report generator. Rather than putting actual text in the document, you add instructions that tell Byline where to look for the data—which fields in which file. When you print the document. Byline fetches the text directly from the appropriate database file.

database fields you want to incorporate, and they're inserted in your document as codes that will automatically be replaced by data at print time. You can copy and rearrange these codes to position records on the page.

The restrictions of Byline's live-link feature would have proved stumbling blocks for Adelman had he used it for either of his directories. You can't format one page differently from previous pages or insert blank pages. This would have made it difficult to incorporate ads into the 1988 directory, because it would have thrown off the pagenumbering sequence. And although Byline's database-publishing feature would have let

# **SOFTWARE DATA**

Byline v1.0 (\$295). Ashton-Tate Corporation, (213) 329-8000. System Requirements: 384K IBM PC, PS/2; two drives (hard-disk drive optional); CGA, EGA, VGA, Hercules; DOS 2.1 or higher; 5.25- or 3.5-inch.

dbPublisher v1.1 (\$695). Digital Composition Systems, Inc., (602) 870-7667. System Requirements: 640K IBM PC, PS/2 (80286 or 80386 microprocessor); hard-disk drive; EGA, VGA, Hercules; DOS 2.1 or higher; 5.25- and 3.5-inch.

For the 1988 directory, Adelman broke Adelman group his members by type of business, as he did in both directories, he wouldn't have been able to add the headings prefacing each group.

Page-layout limitations disappear with dbPublisher, a much more advanced database-publishing program from Digital Composition Systems. This powerhouse can create documents with live links not only to dBase or dBase clones, but also to R:Base and several spreadsheet programs, such as Lotus 1-2-3 and SuperCalc4 and Super-Calc5.

Compared to Byline, dbPublisher gives you true TP font control and formatting options. If you group records together by category, you can start each group on a new page with a different heading. You can even perform calculations on numeric fieldsperfect for product invoices. A particularly impressive feature lets you format parts of your document conditionally. For example, if you're putting together a price list, you could specify that any record added after a specific date be printed in boldface, preceded by "New Item."

This database power makes dbPublisher more difficult to master than typical DTP software. Creating even a simple document requires stringing together programming instructions that tell the program what and how to print. You select all the instructions from menus, which makes things a little Like most of Byline's features, this one's easier. But this is not a package for the easy to use. From a menu, you select the casual user-especially since it sells for \$695 and requires a 286 computer.

# OTHER APPROACHES TO TIMELINESS

The granddaddy of DTP software—Page-Maker-shouldn't be overlooked as a tool for fashioning catalogs or directories. Even though it can't create a live link to a database, PageMaker will import dBase files and let you treat them as text in a document. When you import the database, you select the fields you want from a menu and can even specify fonts for each field.

The approach that's best for you depends on both your work and your budget. If you do no more than put out a directory once a year, you may want to keep your software as simple and inexpensive as possible. For database-intensive pages that don't require the most elegant formatting, such as extensive price lists, a combination of Byline and dBase could be just the ticket. And if you're losing business because your catalogs are out of date three weeks after you print them, you may find it worthwhile to invest in dbPublisher and a compatible database or spreadsheet. With any one of these scenarios, you can say goodbye to those drab publications crammed full of chronically dated information.

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# Fax It by Modem

# BY ALFRED GLOSSBRENNER



I'm not a computer chauvinist—I don't believe that one should use a personal computer for everything. But I am a strong believer in electronic mail. Electronic mail lets you send your

message whenever *you* are ready (and thus instantly cross a task off your to-do list). And it lets your correspondent receive messages whenever his or her schedule makes it most convenient. Your correspondent need only sign onto the same e-mail system and check his or her mailbox.

E-mail isn't difficult to master, but it does involve modems, serial ports, and communications software—components that put many people off. Facsimile machines, by contrast, are a cinch to use. Anyone who knows how to use a telephone and a photocopier can transmit documents within seconds of plugging in the machine.

As prices fall and ownership of fax machines increases, phrases like "Give me your fax number" and "Why don't you just fax it to me?" are turning up with astounding frequency in business conversations.

Clearly, if most of your clients and customers use fax machines, you should buy one too. But if your needs are less intense and you are already comfortable with electronic mail, there's another option.

Virtually every e-mail system now allows you to send your messages to fax machines (Group III) around the world. All you have to do is specify the telephone number of the target fax machine instead of an electronic mailbox when keying in the address.

If the target fax machine's number is busy, most e-mail systems will automatically hang up and try again—until the connection is achieved or a designated number of tries has been made.

Even those who already own a fax machine can appreciate this feature, for it eliminates repeated redials on your fax machine, keeping it available for incoming faxes. And you can send material straight from your computer, without having to print it out.

Most systems will place a confirmation of delivery (or failure-to-deliver message) in your electronic mailbox on request. And some systems offer a broadcast capability that lets you send a message to several fax machines simultaneously. Again, you free your fax machine up from dialing a long list of phone numbers.

### **COMPARING SYSTEM COSTS**

The cost of sending faxes through e-mail systems is reasonable, but comparing prices is difficult. MCI Mail charges \$.50 for the first half page and \$.30 for each additional half page (under its \$10 a month Preferred Pricing Fee, a half page counts as an e-mail message). Western Union's Easylink charges \$.55 and \$.35. But each system's definition of a half page differs.

"I once sent copy to a company's fax machine via MCI Mail. The recipient called a few hours later saying, "I can't believe how crisp and clear it is."

On MCI, a half page is 28 lines of 80 characters each, or 2,240 characters. On Easylink, a half page is defined as 1,250 characters of message text. And CompuServe uses a different pricing scheme altogether, charging \$.75 for the first 1,000 characters and \$.25 for each additional 1,000 characters.

Your best bet is probably to stick with whichever system you are currently using and try the e-mail-fax feature for a while. If you find you are using it frequently, it may pay to sharpen your pencil and spend time calculating the best deal.

Regardless of the system you use, your correspondents will be impressed. Each time a document passes through a fax machine, whether going in or coming out, it loses resolution. E-mail-to-fax transmissions are much crisper because they eliminate the initial scan of the material.

I once had to get some ad copy to my publisher in New York in time to meet a tight deadline. So I sent it to the company's fax machine via MCI Mail. My editor called a few hours later saying, "I can't believe how crisp and clear it is." (I wish he had been as enthusiastic about my copy.)

### **XPEDITE'S ADVANCED E-MAIL FAX**

There are at least two things you *cannot* do with most e-mail-fax connections: You cannot transmit graphics, and you cannot receive messages from fax machines.

Yet even these limitations are changing. Xpedite Systems, Inc., a relatively new email service, lets you upload a message and send it to any fax machine using a stored graphic image of your letterhead. It also lets you send documents prepared on WordStar, Microsoft Word, MultiMate, WordPerfect, and other leading word processors, with all of your bold print, underlining, and other special formatting features intact.

Unlike other e-mail services, Xpedite will receive a fax and place it in your Xpedite mailbox. It's stored as a binary file in the Tagged Image File Format (TIFF) used by many graphic scanners. Once you download the file, you have two choices. You can view it on your monitor (if you have a Hercules, CGA, EGA, or VGA graphics adapter) or dump it to your Epson-compatible or Hewlett-Packard—compatible printer.

Currently available only to IBM and MS-DOS users, Xpedite subscriptions cost \$49 per year and include the software needed to access the system. Subscriptions also include a \$10 credit good toward the registration of your letterhead on the system. After two months of free use, there's a monthly minimum of \$10.

Xpedite's standard connect-time cost for uploading or downloading messages and files is \$7.50 an hour. You then pay again to send the fax, between \$.30 and \$.90 per minute, depending on the time of day. Xpedite says that the system normally transmits the first full page to a fax machine in 45 seconds and each succeeding page in 30 seconds. (For more information, contact Xpedite Systems, Inc., 446 Highway 35, Eatontown, NJ 07724; [800] 227-9379; [201] 389-3900.)

I have no plans to buy a fax machine, but I have become a real fax enthusiast, thanks to the e-mail-fax connection. Recently, for example, I sent a long fax to a reader in Geneva, Switzerland, responding to a letter he had sent me. The cost on MCI Mail was a mere \$3.30, and the fax was there instantly. If I had had to hassle with international postage, I never would have responded. And speaking of responses, now I too can say, "I'll fax it to you."

ALFRED GLOSSBRENNER is the author of many computer books, including Alfred Glossbrenner's Master Guide to Free Software for IBMs and Compatible Computers (St. Martin's Press).



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# Finding the Right Employee: Part I

BY BARBARA STEIN

# Proven Techniques From Robert Half, Founder of Recruiting Firm Robert Half International

Business is good. Profits are up, your phones ring endlessly, and you're exhausted. After evaluating costs against benefits, you're ready to hire an employee.

Before you pick up the phone and place a classified ad, be aware that the odds of finding a hardworking and loyal employee are against you. "A recent study by the United States Department of Labor shows that only about 50 percent of newly hired employees last more than six months in the job for which they were hired," according to Robert Half, founder of Robert Half International, the oldest and largest recruiting firm in the world. "But the problem of ineffective hiring goes beyond the disturbingly high proportion of employees who either quit or are terminated within a few months of being hired. It extends to the millions of employees who, while they don't quit and aren't terminated, never make meaningful contributions to their companies.'

Half acknowledges that while some of the best hiring decisions defy logic, there are steps you should take at each stage to enhance your chances of selecting the best person. Part I of this two-part article introduces you to some of Half's most successful recruiting techniques. Next month's tips will guide you through the résumé maze, show you how to screen applicants by phone and obtain candid references, and provide you with some of the best interview questions.

# JOB DESCRIPTION

As you draw up your list of employee responsibilities, don't forget to include tasks you dislike and want to delegate. If you're seeking an administrative assistant, routine duties like answering phones, database and file maintenance, and monthly invoicing will

MONTHS

probably appear on your list. And if you procrastinate when it comes to tracking and ordering supplies or running outside errands, include these on the list as well. Not only will it lighten your load, but you'll ward off the familiar employee excuse "It's not in my job description."

### **EMPLOYEE CHARACTERISTICS**

Before you decide your employee must be a degreed computer whiz with no less than five years' experience, ask yourself how necessary these requirements are. As Half points out, "Sometimes employers ask for higher credentials than they need and overlook characteristics like responsibility, loyalty, accountability, and compatibility. These qualities are important to a small company. The proper background doesn't mean that a person is right for the job. Willingness and ability are the two most important characteristics to look for. And one without the other won't work."

# SALARIES, BENEFITS, SCHEDULES

Would you apply for a job that paid entry-level wages with no fringe benefits and no guaranteed advancement? Probably not. But suppose these drawbacks were offset by benefits to which no dollar value can be assigned: a flexible work schedule, an important role in a growing business, and an informal office environment? To the millions of people who cannot or will not take corporate jobs because of personal or family needs and responsibilities, your job may be a dream come true.

# PLACING A CLASSIFIED AD

Classified advertising is the most widely used method of employee recruiting; corporations as well as agencies advertise regularly. And with good reason—they draw hundreds

# HOW TO WRITE A CLASSIFIED AD

## WHAT TO INCLUDE

- Job title
- Location
- Experience required
- Skills and education
- Growth potential and benefits (if any)
- Type of company
- Résumé request
- Reply address

### WHAT TO AVOID

- Blind ads showing only a box number. "There are two good reasons to avoid these," says Half. "Surveys have shown that job seekers are often mistrustful of blind ads. (The ad could have been placed by your current employer.) Second, blind ads rarely draw responses from employed people. It's simply too big a risk for people who are secure in their present jobs."
- Telephone numbers. Unless you're willing to answer scores of inquiries, put "No calls, please" in your ad.
- Discriminatory words. "You must be scrupulously careful not to use any words that might be construed as discriminatory against race, color, religion, national origin, sex, marital status, or handicap," says Half. "It's no longer acceptable, for example, to advertise for a Gal Friday. Indeed, you should take great pains to exclude any words that might discourage members of either sex from applying." Half also advises against using "promise" statements like "permanent career," in case you fire the employee later on.

### **TIME- AND MONEY-SAVING TIPS**

- Eliminate unnecessary (and costly) words like a and the
- Avoid excessive use of abbreviations. Only use obvious ones like *sal*. and *exp*.
- Skip the superlatives. Keep it simple, factual, and upbeat.
- Don't be afraid to personalize. Feel free to use the pronouns we and you.

BARBARA STEIN is a contributing editor for HOME-OFFICE COMPUTING.

# BUSINESS 101

of replies. However, says Half, "The majority of candidates attracted to an ad are not even close to being contenders. If you choose to advertise, you need to be careful about where and when you advertise, and you have to focus more than most people seem willing to on how to word your ads" (see box, How to Write a Classified Ad).

In Half's experience, ads placed in Sunday editions of newspapers carrying the most employment advertising draw the biggest response. Trade publications catering to specialists are also an excellent source: "We advertise in financial and data-processing publications and are generally pleased with the results. And if your company is located in the suburbs, don't overlook local papers, particularly when you're trying to fill lessspecialized positions."

## **ALTERNATIVES TO THE CLASSIFIEDS**

 Solicit referrals from business acquaintances, organizations, and friends. If you're a member of the Rotary Club or a marketing, networking, or users' group, make an announcement at a meeting, place an ad in the club newsletter, and network with individual members. Other good bets include associations whose members share a common interest, Women in Word Processing, for example. Check your telephone book and contact the president.

• Post a note on electronic bulletin boards. Unless you're offering salary and benefits that will entice someone to relocate, stick with local boards. Contact the sysop by telephone and request that your announcement appear with sign-on messages. Then go on-line and post your advertisement.

 Approach universities and technical and vocational schools. Most offer job assistance programs that match graduates with employers. Contact placement directors at schools offering the appropriate coursework. You'll be asked to complete a job form and list your hiring criteria. Interviews can be coordinated through the director, or you can arrange them directly. No fees are paid.

 Contact your state employment agency. Job seekers in all categories register with this state-supported service. Find regional offices listed under Employment in the state government pages of your phone book. Some offices post openings on a computerized job board available to several offices simultaneously. Your company name, however, remains confidential until the agency prequalifies an applicant.

• Consider employment agencies. "There are several advantages to working

with a good recruiting service," notes Half. "First, you're spared the time and money it takes to advertise, screen résumés, and handle preliminary interviews. Second, you can keep your company's name and the job opening confidential until you're ready to interview. Finally, the only people you'll interview are people qualified to handle the job.'

Should a small company use an employment service? "If you're looking for an accountant or manager, use one," Half advises. "But if you need someone to perform menial tasks, it's a waste of money.

Half warns that you should read the fine print and clarify financial arrangements before signing an agency contract. Fees range from 10 to 30 percent of the employee's firstyear salary and are paid by the employer. 'The fee is cheap," adds Half, "if it gets you the right person for the job."

# RESOURCES

Robert Half On Hiring, Robert Half (1985, Crown Publishers, Inc., \$15.95). Half walks you through each step of the hiring process.

Hiring the Right Person for the Right Job, Cecelia Dobrish, Rick Wolff, Brian Zeznik (1984, Franklin Watts, Inc., \$16.95). No-nonsense primer covering all stages of hiring.

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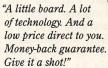
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Paul Masters, UC Berkeley MBA and Northern Telecom alum, is President of Fremont Communications.

# Don't Take No for an Answer

# **BY PAUL & SARAH EDWARDS**



Whether it's being turned down for a loan by one bank after another, hearing no from a whole string of potential customers, being passed over for a much desired contract, or having an-

other manuscript returned, rejection is part of making it in your own business.

Rejection is like an evil-eyed dragon that haunts you, but you can extinguish its flaming tongue and dull its razor-sharp fangs. How can you overcome the fear of rejection and turn those nos into yeses? Here's a method we've devised over the years—ask yourself this series of questions.

- 1. Do you want to do this? When faced with repeated rejection, you're often tempted to say, "Hey, I don't need this!" And you're absolutely right. As your own boss, you don't have to put up with anything. You don't have to start the business or keep it going. You're free to quit any time you want. In 1981, when publisher after publisher rejected our manuscript of Working from Home claiming that the home office was just a fad, we started asking ourselves the same question. Of course we didn't have to write that book. It could have gone unwritten. Someone else could have written it. But we wanted to do it.
- 2. How much do you want to do this? Okay, so you want to do what you've been told you cannot do. How much do you want to do it? Do you want it enough to put up with whatever it takes for as long as it takes? We've found that the more rejection a particular venture involves, the more you have to want to do it. We rank our resolve on a scale of 1 to 10, with 1 meaning we don't want to do it at all and 10 meaning it's extremely important. We've found that if we don't score an 8 or above, chances are we don't want it enough to stick with it through the long-term rejection many business ventures entail.

In our case, writing Working from Home rated a 10, which was a good thing because it took four years to get it published. Now, eight years after we decided to do it, Working from Home is in its second edition, and

PAUL & SARAH EDWARDS are the authors of Working from Home (Jeremy P. Tarcher, 1987) and the audiotape, How to Succeed at Working from Home (TDM/McGraw-Hill). You can contact them on the Working From Home Forum on CompuServe (GO WORK).



# "In the business world, no is not necessarily no. We've come to hear it as meaning not now or maybe."

sales are stronger than ever.

3. Are you taking business too personally? It's common for entrepreneurs to overidentify with their businesses. This is particularly true in a service business like consulting or a creative business like writing. There's a tendency to think that the bank or the customer is rejecting you or judging you as inadequate.

In actuality, most business rejections have less to do with you than with the circumstances. If you can remain sufficiently detached and realize that you aren't the problem, you're more likely to ascertain what the actual circumstances are and what steps to take next.

4. Are you being realistic? Business is often a numbers game. What looks like rejection may simply be a matter of statistics. For example, in 1974 Sarah opened a psychotherapy practice in Kansas City. It was her first business, and she had a definite business plan. By the end of the first year she had reached only 50 percent of her first year's goal. She had done plenty of marketing, gave free speeches, took referral sources to lunch, and more. She felt rejected by the community and those she'd helped. She was ready to declare her first business venture a failure.

Fortunately, before throwing in the towel, she hired a private-practice consultant to discuss the problem. When she told him about her "failure," he threw his head back in a hearty laugh. He informed her that on the average it takes three to five years to build a self-sustaining practice—she was well ahead of schedule.

Novice entrepreneurs are often surprised to learn that there is a sales-rejection ratio for most businesses. Only experience will determine your ratio. If you need to make 20 calls to get one appointment and five appointments to get a sale, you needn't consider the first 99 who don't buy rejections.

5. Is that no a no? Before letting rejection get you down, always consider that a no is not necessarily a no. Some businesspeople routinely say no at first simply to determine if you are serious enough to pursue the issue. And you'd be amazed at how many people simply change their mind after talking with you. Times change. Circumstances change. We've come to take no as meaning not now or maybe.

We learned this lesson the hard way. When we began selling radio advertising space for our Los Angeles show, "Wake Up to Success!," we were taking no to mean no, only to discover that companies who said no to us were advertising on other shows. We weren't following up to close the sale. Since that time we've made many sales that began as one or more nos.

6. Can you take matters into your own hands? Moving targets create their own success. If you're not getting what you want, take charge. Don't let the fate of your business rest in the hands of someone else. If the bank loan you need for expansion is not forthcoming, try to raise funds yourself.

We've seen this work over and over again. When no radio stations wanted to pick up our show, we bought time on a small station. A year later, we were army on a much larger station, and we'd grown from a 30-minute show to a 90-minute show. Recently we increased from one day a week to five days a week (and back to 30 small station. A year later, we were airing minutes) during evening rush hour.

Dragons dance only in the dark. To get rid of them, ask questions that will turn on the lights.

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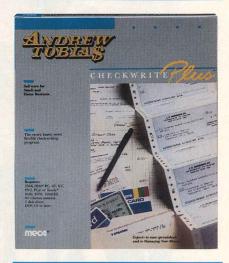
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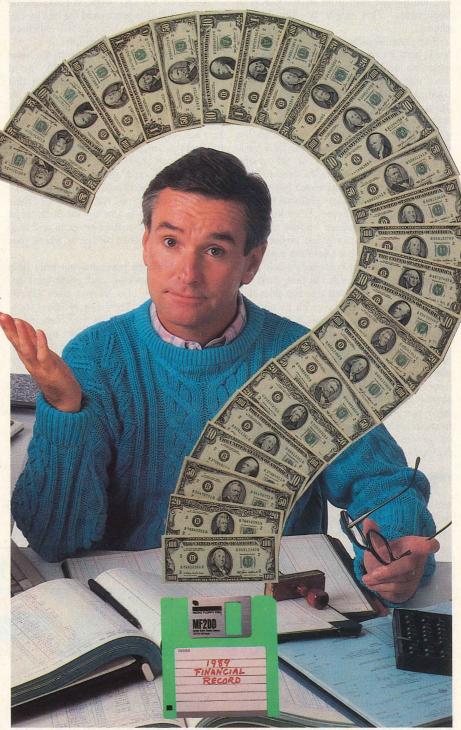
# Home Office

Which
Is the
Best
Financial
Software
For You?

BY LISA KLEINHOLZ

Take Our Self-Test
And Find Out How to
Select a Program
That Suits Your
Financial Style and
Record-keeping
Needs

With Capsule Reviews
Of Check-writing,
Personal-finance, and
Accounting Software



hy did you buy a computer?

If you're like most people, your response will be either (a) for writing; or (b) to handle finances. And, again, if you're like most folks, you're probably more satisfied with your word processor than you are with your financial software—if you even have any.

Compared to picking a word processor, deciding on the best financial program for your needs is a complex process. Whether the software is being used for personal finances, small-business finances, or—quite

typically—a mixture of the two, the variety of programs and their diverse approaches to dealing with money can be staggering.

### **FINDING YOUR FINANCIAL DIRECTION**

So what financial software do you need? If you're running a small business, you might jump to the conclusion that you need an accounting program. But that's not necessarily true.

Many home-based businesses can be run perfectly well with the combination of a good check-writing program, such as *Quick*-

en, and outside help from an accountant or bookkeeper. This might be the simplest choice.

Some small-business owners who want to track both business and personal finances, including investments, with the same software might be better off with a personal-finance program, like *Managing Your Money*. Personal-finance programs are—in many ways—accounting programs in disguise. They have been sweetened to reach a wider market and won't be good for a business with heavy inventory or job-costing requirements. But they can be used to keep the books for many home-based businesses.

When should a business graduate to traditional accounting software? Even the bookkeeper and the accountant I talked to—both of whom specialize in small businesses—said they would have a hard time answering that question without knowing an individual business's detailed needs. In fact, there are so many factors involved that any financial-software decision has as much to do with personal taste and knowledge as it does with specific financial requirements.

Despite the difficulty in choosing the best financial software for your business, taking our financial self-test will help you determine what kind of software you need and choose the best package for your business. After you get a better picture of both your financial style and your business's needs, go on to our summary reviews of financial packages.

### **THREE WAYS TO COUNT BEANS**

Since check-writing, personal-finance, and small-business accounting programs perform many of the same functions, the choice becomes even more confusing.

All three let you write checks, record deposits, group expenses and income by category, keep tabs on credit-card expenses, and manage your bank accounts.

**Check-writing** programs perform the basic financial chores quickly and easily. So if writing checks and keeping a register that lets you code payments (such as BE for business expenses) are the main functions you need, a check-writing program is your best bet. That's also true if you have limited time and patience for financial record-keeping. You can always hire somebody to do the hard stuff, and you will have already done most of the detail work for them (so you won't have to pay for too much of their time). Even if you use no other financial software, a check-writing program will help you get a much better picture of where your money is going.

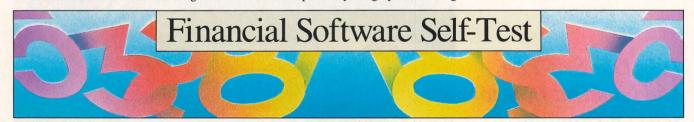
Personal-finance programs not only help you manage checking and credit-card accounts, but they also let you track investments and loans. They can produce statements of net worth: what you own minus what you owe. Many can be set up to produce a balance sheet, a special type of statement of worth often required by banks managing business loans. Most personal-finance packages help you calculate loan-payment schedules, project cash flow, budget expenses, and estimate taxes. Some even provide life-insurance and retirement planning.

**Small-business accounting** programs—like personal-finance packages—manage bank accounts and credit cards and track investments and loans (which they often term *assets* and *liabilities*). But they do it in a highly structured manner. Check-writing and personal-finance packages group income and expenses by category. Accounting

programs call this list of categories a *chart* of accounts. They produce reports that your accountant, the government, and your bank loan officer will understand (and sometimes require). Typically, small-business accounting packages are not made to be fun to use, and therefore many lack those features—pop-up notepads, easily-accessed category lists, and calculators—that help make check-writing and personal-finance software so popular. Some don't even have help screens. And—with the exception of Dac-Easy Light, Dome Bookkeeping, and One-Write Plus—they require some knowledge of double-entry accounting.

For those unfamiliar with the term, in double-entry accounting, every transaction involves two sides—debit, the left side, and credit, the right—that must always be equal. For example, when you pay a bill for stationery, you debit (increase) your office-supplies account and credit (decrease) your checking account. However, when you make a bank deposit, you credit your salesincome account and debit your checking account; which, in this instance, means you increase them both. Finally, when you pay a loan installment, you debit your loan account and credit your checking account, thereby decreasing them both. Because of these varying meanings of debit and credit, non-accountants often become hopelessly confused with double-entry accounting.

LISA KLEINHOLZ received her financial baptism by fire over five years as the owner of Earthworks, a small pottery shop in New York City. She now lives in Amherst, Massachusetts. Further financial advice for this article was provided by Penelope Boehm of Boehm Business Services in New York.



With this profusion of choices, where do you begin? You can start by taking our two-part quiz: Your Financial Style and Your Financial Needs. Each is an important factor in making the right pick, and each considers your computing inclinations as well. For instance, if you don't have the knowledge or patience to set up a complex program, it would be a waste of time to try. Others love to juggle figures and crunch numbers; they might be ready to handle more complex software at an earlier stage.

After the quiz, you'll find capsule comments on many current financial-software packages. Since each program has a "personality," consider your choice carefully before buying—even after you've settled on the type of software that's best for you.

# Part One: Your Financial Style

# 1. Which of these statements comes closest to expressing your attitude toward money?

- **a.** It's one of life's unpleasant necessities. The less I think about it, the better.
- **b.** Money's not an obsession, but I want to learn more about it, so I can see how I'm doing.
- **c.** I love money. Graphs, cash-flow charts, and net-worth statements fascinate me. It's a great game. Sometimes I feel like I'm playing real-life Monopoly.
- **d.** I take money seriously—I think of it almost as a science. Cute examples in tutorials irritate me. I figure the more I know

about my finances, the more control I'll have over my future.

# 2. Do you know the meanings of the terms debit, credit, and trial balance?

- a. What?
- **b.** Not really. And I'll find out only if I have to.
- c. I have a vague idea, and if it will make me better at my business, I'm willing to learn.
  - d. Yes.

### 3. What's your record-keeping style?

- a. I don't keep records—other than my checkbook.
- **b.** I hate to admit it, but I'm a hopeless mess. I've got deposit slips, checkbooks, and bank receipts scattered all around my

office, although I usually manage to put my hands on something when I really have to.

**c.** I'm fairly well organized, but it doesn't come naturally—I have to force myself.

**d.** I'm compulsively neat. "A place for everything and everything in its place" is my motto.

# 4. How comfortable are you with a computer?

 I'm just beginning, and I'm easily confused.

**b.** I'm experienced with the software I use regularly, but it takes me a while to get used to new programs.

**c.** I'm a seasoned computer user, but I have limited time and appreciate a well-written, easy-to-use program.

**d.** I'm a tinkerer. I collect software, am a macro freak, and love to dabble with programming.

# 5. How much time are you willing to invest in learning to use a financial program?

a. 15 minutes, preferably less.

**b.** A few hours. More, if the job is made fun by useful help screens, attractive color, and clever examples.

c. Probably a week or so—on and off.

**d.** Several months. I intend to keep using my old bookkeeping system side by side with the new computerized system while I get used to the program.

# Part Two: Your Financial Needs

Check the answer that most closely matches your situation. If you're a salaried employee working from home, and none of the answers for a given question apply to your situation, don't check anything.

6. How do you earn your income?

a. I have a salaried job.

**b.** I have a salaried job and a small, part-time, home-based business.

c. I run a full-time business at home.

**d.** I run a rapidly expanding home-based business, and I may have to move it out of the house—or move to a bigger house.

### 7. How do you bill for your work?

a. By the hour

**b.** By the job

c. By the goods I sell

**d.** Some combination of the above

# 8. What do you sell?\*

a. My labor—to my employer

**b.** Services—intangible things, like word processing, house painting, consulting, designing, private teaching, or hairdressing

c. Tangible goods that I buy and/or make

**d**. Tangible goods that I either buy or make and services, too

\* Note: If you're not sure, chances are you're selling a service.

# 9. How much money do you bring in every year before subtracting business expenses?

a. Less than \$30,000

**b.** \$30,000 to \$75,000

**c.** Between \$75,000 and \$500,000

**d.** More than \$500,000. Or at least I have more than \$500,000 total in assets that I want to keep tabs on.\*

\* Note: Some financial-software packages cannot handle balances over \$999,999.99.

# 10. Who is going to be using your financial software?

a. I will.

b. I and/or my spouse

**c.** I and an assistant who knows less about accounting or computing than I do

**d.** I and an assistant who knows more about accounting or computing than I do

# 11. Do you plan to separate personal and business records?\*

**a.** No—personal budgeting is my primary interest.

**b.** My business and personal finances are so interconnected, I'm best off keeping it all in one place.

**c.** I've considered it. My business is becoming so complicated that its finances should be handled separately.

d. Of course! Doesn't everyone?

\* Note: You should keep business and personal records separate if you're at a stage where you think you might need accounting software. It will make bookkeeping easier—even if you don't eventually choose an accounting program.

# 12. Do you have someone to help you organize income and expense categories?

a. Gee, that sounds like a lot of work.

**b.** No. But I can use common sense, plus the categories for deductions and income on my Schedule C, to figure out which ones I need.

**c.** My tax preparer will give me a little help, but I don't want him or her to have to spend too much time at it.

**d.** I fully expect to have an accountant prepare a chart of accounts for my business.

# 13. How often do you expect to make entries?

a. Once a month

**b.** Every couple of weeks

c. Once a week

d. Daily

# 14. How many deposits do you make each month? How many checks do you write? What is the total of these two figures?

a. 0 to 15

**b.** 16 to 50

c. 51 to 80

d. More than 80

# 15. How many bank accounts do you have (include money-market accounts)?

a. Only 1

**b.** 2 to 5

**c.** 6 to 9

**d.** 10 or more—I don't believe in keeping all my eggs in one basket.

16. Will you want to export financial information to another program,\* such as a database, spreadsheet (for some real number crunching), or word processor (to pretty it up

### for a loan officer)?

**a.** After I make my entries, I don't want to think about this stuff again.

b. I'm not sure. Maybe.

c. Yes. That's important.

**d.** I wouldn't consider a program that didn't provide that option.

\* Note: Exporting data may prove to be more important than you now realize, especially if you are consistently answering other questions with Cs and Ds. Some of the most popular accounting programs do not give you any way to export data.

# 17. Are you willing to pay for telephone support from your software vendor?\*

**a.** Certainly not—I want to spend as little as possible.

**b.** I'm willing to pay more for some extra features, but I don't want to pay for support.

**c.** If I needed the phone support because of a flaw in the program or manual, I'd resent having to pay for it. Otherwise, I wouldn't mind paying for a five-minute call to get help.

**d.** I'll pay if I have to, as long as the support is competent and professional. If I can get a \$50 to \$90 yearly subscription that includes regular program updates and a quarterly newsletter in addition to technical help, so much the better.

\* Note: Many of the small-business accounting programs charge by the hour (typically \$60) for telephone support.

# 18. What extras do you hope to find in your financial-software package?\*

**a.** Pop-up calculator, pop-up list of budget categories, and automated repeating entries.

**b.** Above, plus loan-amortization calculation, bill reminders, and tax categories automatically keyed to budget categories. Graphs might be nice, too.

c. Above, plus cash-flow forecasting, maybe even a card file for addresses of clients and suppliers, or a calculator that will estimate my life insurance needs, and, of course, full integration of my stocks and bonds and other investments.

**d.** I can do without all those fancy frills (or most of them).

\* Note: Many full-fledged accounting packages do not have a pop-up chart of accounts. You have to keep a written copy for reference.

# 19. What tax forms and schedules do you file?

**a.** Just a 1040 and, possibly, a Schedule A (Itemized Deductions)

**b.** Above, plus one or more of the following: Schedule B (Interest and Dividend Income), C (Business Profit and Loss), and SE (Self-Employment Tax)

c. Some of those listed above and Schedule D (Capital Gains and Losses), E (Supplemental income from rents, royalties, partnerships, estates, trusts, S corporations), or F (Farm Income)

**d.** Some or all of those listed above, plus other business-related forms, including employee W-2 forms, sales-tax forms, and more. You name it, I file it.

# 20. Would you like financial software to help you keep tabs on what people owe you?

**a.** I don't give a dime of credit—everybody pays up front.

**b**. Most people pay me within a month or so of when I bill them. If I have a problem, which is unusual, I get on the phone and that solves it.

**c.** It would be a big help. I'd love to know at a glance how long some accounts have been outstanding.

**d.** It's a must. After all, I've got to know when it's time to send out past-due letters.

# 21. Do you want to keep track of accounts payable?

a. I'm sure I don't want it, whatever it is.

**b.** You mean bills? I keep bills in a folder, but if it were made really easy for me, I might like to try.

c. If it weren't too difficult, being able to keep track of what I owe and how long I've owed it could be useful—I'd like to take advantage of discounts offered for early payment.

**d.** Cash flow is a big problem for me. I rarely pay bills within 30 days—or even 60—and I need to know at a glance what my company owes and when it's due.

# 22. Do you have anybody working for you?

· a. No one but myself

**b.** I occasionally hire someone I pay by the job. I also might pay commissions on sales or fees for services. But I have no one you could call an employee.

c. Yes. I have one or more employees, and I am responsible for their federal withholding tax, local taxes (in some states), and FICA.

**d.** I have several people working for me. I file quarterly and annual employee-related forms.

# 23. Is inventory an important aspect of your business?

a. Inventory? I don't have any.

**b.** That word makes me cringe. At the end of the year, I look around at my shelves and under the desk—and make a rough guess.

**c.** I keep inventory records separately. I'd only want to include this in my computerized bookkeeping if it were simple to do.

d. This is one of the major reasons I need an accounting package. I have large inventories of different items; and I would like to find out at a glance when it's time to reorder, what my average cost per item is, and how much the inventory is increasing.

# 24. Would you like to have sales tax automatically incorporated into your invoices?

**a.** I am not in a business (or a state) that collects sales tax.

**b.** Occasionally I have to collect a sales tax. It's not an important aspect of my business.

**c.** My business does involve collecting sales tax. But if I can't find an easy program to track it, I'll do without it.

**d.** Of course! What's the name of the software that does it?

# 25. Do you own real-estate investments, stocks and bonds, or valuable collectibles?

a. I wish I did, but the answer's no.

**b.** I'd like to keep track of the equity I'm building in my house and of some 90-day CDs—maybe even those five shares of Consolidated United my Aunt Sophie left me.

**c.** That's how I make my living (or a portion of my living). I consider myself a serious investor in the market or real estate.

**d.** Don't you mean, "Does your business own real estate—or stocks and bonds?"

# **SCORING YOUR STYLE AND NEEDS**

Scoring works as follows: You get 1 point for each A; 2 for B; 3 for C; and 4 for D.

Now go back to Part I: Your Financial Style, questions 1 to 5, and total up your score. If you got:

• 5–8 points, your financial style is Keep it Simple.

• 9–13 points, you're a candidate for Friendly, with lots of Features.

• 14-17 points, it means you might enjoy a program with Speed and Power.

• 18–20 points, rate yourself Financially Fearless.

To find your score for Part II: Your Financial Needs, look at questions 6 to 25. If you got:

• 20–35 points, rate your financial needs Basic.

• 36–59 points, Intermediate.

• 60 or more points, Advanced.

As a guideline to finding the best program for you, look at the chart below and find yourself on it. If there are two choices, consider the following question: Do you want to keep track of personal investments, especially stocks and bonds?

If the answer is yes, choose a personal-finance package.

If the answer is no, go with either check writing or accounting.

### **WHICH TYPE OF PROGRAM IS FOR YOU? NEEDS Speed and Power Financially Fearless Keep It Simple Friendly with Features** Basic Don't Computerize Check writing Check writing or Personal finance personal finance Intermediate Check writing or Check writing or Personal finance Personal finance personal finance personal finance Advanced Check writing or Personal finance or Powerful personal Powerful personal "Easy" accounting finance or general personal finance, finance or "Easy" plus outside help accounting accounting

# FOR THE FINANCIALLY FEARLESS ONLY

If you feel you're ready for a traditional accounting program, think twice. You would have answered D to several of the following Financial Needs questions: 6, 11, 17, 18, 19, 22, 23, and 24. The closer your score is to the top score of 80, the more likely you are to benefit from an accounting system.

At this stage, go over your business's specific requirements with an accountant, then shop around carefully. If you're using a standard, noncomputerized one-write system now, weigh the features of the easier accounting programs before leaping to more complicated, full-featured software. Once you start computerizing a business, you don't want to find out in the middle of the process that your software is creating more problems than it's solving.

By the way, a one-write system is a manual check-writing system where each transaction is recorded on a ledger automatically as you write checks (which have built-in carbon paper). Computerized check writing mimics the one-write system, as does the *One-Write Plus* package; in both cases, you don't need to know double-entry accounting.

If you are sure you need an accounting program, consider these features:

**Departments.** Also called *profit centers* or *job centers*. If you need to keep information on income and expenses for separate products or projects, look for a program that can do this. The latest version (4.0) of *DacEasy Accounting* offers as many departments as you want; *Bedford Accounting* can handle 999 different departments; *One-Write Plus*, 99; and *ACCPAC Easy*, 10. Some personal-finance programs, like *MacMoney* and *Dollars and Sense* on the Mac, have a limited version of this feature. You can even do minimal departmentalization with *Quicken*.

**Reports.** What kind do you need? Do you want to see them on-screen? Do you want to be able to export them to a spreadsheet? Decide before you buy.

Accounting periods. Make certain that a program will let you work with material that's already been posted. Some, like ACCPAC Easy, Bedford Accounting, and One-Write Plus, let you keep several periods (months or quarters) open at one time. Be sure the program you choose allows you flexibility.

**Upgrading.** Some programs let you upgrade to higher-level relatives. *BankMate* users can upgrade to *MoneyMate*; *Checkwrite Plus* to *Managing Your Money*; the Mac version of *Dollars and Sense* to *Business Sense*; and *ACCPAC Easy* users to *ACCPAC BPI* and *ACCPAC Plus*. With *One-Write Plus*, you can add modules for payroll and a utility that lets you create *1-2-3* and other spreadsheet files.

**Printing checks.** Some programs only print out checks one at a time. Most, however, let you write all your checks, then print them out in batches, which is faster.

Spreadsheets. Several programs—ACCPAC Easy, On Balance, MoneyMate, Checkwrite Plus, Dollars & Sense, and Managing Your Money, among others—let you export your data into popular spreadsheets. One-Write Plus offers an extra-cost program to make this link. If you are comfortable with spreadsheets, combining one with check-writing software may substitute for an accounting program.

# Looking at Financial Software

Nicoletta Welsh, a certified public accountant in Greenfield, Massachusetts, who has many home-based and small-business clients, offered the following tips.

"The most important thing to look for in a computerized system is a good audit trail—which means you can look at a total, and then easily go back to find how you got that total—the specific checks that you wrote. If the IRS sees \$5,200 in travel expenses, they may want to look at a detailed list to make sure each one is a legitimate business expense.

"Another important feature is flexibility. How flexible is the chart of accounts? Some have built-in structures that make them difficult to work with, others are easier to tailor to a client's special needs."

How do people working out of their homes know when it's time to start using a formal bookkeeping system?

"It really depends on the individual client. One tip-off is when they start to deal with payroll. But less financially sophisticated people, who are more likely to confuse business and personal expenses, probably should go on to a more structured system earlier. Of course, they're going to need one that's easy to use. And they're going to need the help of a financial adviser, tax preparer, or CPA to set one up.

"Also," she added, "if you're going to convert from a manual to a computerized system, you really have to run both systems side by side for at least three months. Six months is even better. That's to make sure you're getting the same information. And it's always best to start with a computer system at the beginning of the year."

Penelope Boehm runs Boehm Business Services—a computerized bookkeeping service with more than 50 clients, many of whom have small businesses—from her home office in New York City. She cautioned against getting a package intended for a much larger business.

"Some of these programs, while they have a lot of good features, are very cumbersome to set up, and they're just too complicated for the majority of home-based businesses. It's like bringing in a tank to crush a mosquito," she said.

"Using a program that's too big for your business can mean wasting a lot of time creating a lot of information that nobody needs—not you, not your accountant, not your bank. I'd rather see people using a simple check-writing or one-write system to organize their records well. It will save them time preparing their taxes. And it will save money, because their accountant will have to spend less time with their returns.

"Time and money," she remarked with a chuckle, "that should appeal to a lot of people, especially if they're running a small business and don't have much of either to spare.

"Anyone starting a home-based business should have at least one meeting with a CPA to learn what the record-keeping requirements are, both federal and state. A lot of times there are specific requirements for a particular industry—say fishing—that they might not be aware of."

How do you know when it's time to switch to a traditional accounting system, rather than just a check-writing program?

"Well, for one thing, if you have a loan, you might have to prepare monthly or quarterly financial statements for your bank. You'd need something more than check writing to do that. And if you have to pay sales or payroll taxes or file industry-specific reports, you should have a professional system. Whether it's manual or computerized doesn't matter, but it should be professional."

The following reviews are a roundup from the ever-growing world of financial software. Whether you need a check-writing, personal-finance, or general-accounting program, this section can serve as a guide to buying the best package for your business.



### **CHECK WRITING**

These are the easiest programs to use and set up. Write checks and record deposits and withdrawals for three or more checking accounts. Record transactions by general categories (telephone, rent, and he like). Sort and subtotal reports by date or category. Special sorting by payee and tax categories available in some.

**BankMate** v3.0 (\$30). Most limited of the check-writing programs. Very easy to use. Fast searches for any word, including memos on

checks. Checks written repeatedly may be automated. Straightforward manual. Recommended for home use only, but can upgrade to MoneyMate. System requirements: 256K IBM PC, PS/2; one drive (hard-disk drive optional); mouse optional; DOS 2.0 or higher; 5.25- or 3.5-inch. Practical Software, Inc., (813) 447-3100.

Checkwrite Plus v2.0 (\$50). This most full featured of the check-writing programs is a portion of Andrew Tobias's glitzy Managing Your Money. Handles an almost unlimited number of credit cards and cash and "non-cash" accounts (such as depreciation). Accounts payable and receivable with aging, invoices, loan tracking, and amortization schedules. Other features include budgeting, cash-flow forecasting, and profit and loss statements. Extensive, easy-to-use tax sorting. Exports data. Entertaining manual and help screens. Good for home, self-employed, and small businesses. System requirements: 256K IBM PC, PS/2; one drive (hard-disk drive optional); DOS 2.0 or higher; 5.25- or 3.5-inch. MECA Ventures, Inc., (203) 226-2400.

**On Balance** v1.0 (\$60). Straightforward checkwriting program, with some good extras such as budgeting, passwords, and several reports, including net worth, actual balances vs. budgeted amounts, and amortization tables for loans. Flexible setup of accounts; create them as you enter transactions or as a separate procedure. Lets you export data to Lotus *1-2-3* spreadsheets, with

clear, step-by-step instructions. Best for home and some small businesses. System requirements: 512K IBM PC, PS/2; one drive (two drives or hard-disk drive optional); mouse optional; DOS 2.0 or higher; 5.25- and 3.5-inch. Broderbund Software, Inc., (415) 492-3200.

**Quicken** v3.0 (\$60, IBM). Popular with small-business owners because of its low cost, speed, flexibility, and the ability to sort and subtotal reports by payee, date, category, or tax category. Excellent manual takes you through steps necessary to generate reports for income/expense statements on separate rental properties, W-2 employee reports, and other tricky maneuvers. Remarkably adaptable. Does data export. Recommended for home, rental-property owners, and small businesses. System requirements: 320K IBM PC, PS/2; one drive (hard-disk drive recommended); DOS 2.0 or higher; 5.25- and 3.5-inch. Intuit, Inc., (415) 322-0573.

**Quicken** v1.5 (\$60, Mac). Many of the same features as the IBM version, but you can split an account only seven ways (rather than 30), which limits its usefulness for payroll. Exports to SYLK files, making it compatible with most spreadsheets, such as *Excel*. Can use with SoftView's *MacInTax*. Great choice for someone looking for an easy Mac program. System requirements: 512K Macintosh (IMB recommended); one drive (two drives or hard-disk drive recommended); System 3.2 or higher. Intuit, Inc., (415) 322-0573.



### **PERSONAL FINANCE**

These programs track investments and loans in addition to checking and credit-card accounts. Some are really double-entry accounting programs in disguise and can be excellent alternatives to traditional accounting programs—unless you need heavy invoicing, inventory, or payroll features.

Armstrong's Home Financial Organizer v2.0 (\$70). A personal-finance package best for home and personal use. Includes special features such as personal, ownership, retirement, and financial document organization. Family's financial records grouped by individual family member "cost centers." Intended to be easy to use, its major flaw is a rigid category structure. System requirements: 256K IBM PC, PS/2; two drives (hard-disk drive recommended); DOS 2.0 or higher; 5.25- or 3.5-inch. Armstrong's Financial Organizers, Inc., (214) 987-1414.

Dollars and Sense v3.1.1 (\$180, IBM). Powerful, automatic double-entry accounting software that can provide many small businesses with all the features needed. Might be the most difficult of the personal-finance programs to learn-partly because of a poorly organized manual with a spotty index. Allows up to 120 categories, which can be split 14 ways. Extremely fast automatic repeating transactions that you can group by type. Another plus is the ability to produce consolidated reports on more than one business-something no other personal-finance program I looked at could do. Excellent stock-portfolio management features. Exports data to 1-2-3 or ASCII files. Recommended for rental-property owners, investors, and small businesses. System requirements: 256K IBM PC, PS/2; one drive (two drives or hard-disk drive recommended); CGA, EGA, VGA, Hercules; DOS 2.1 or higher; 5.25- and 3.5-inch. Monogram Software, Inc., (213) 533-5120.

**Dollars and Sense** v4.1c (\$150, Mac). Looks better on the Mac than it does on a PC. Also more powerful—allows up to 9,999 categories and an unlimited number of transactions (which can be split 23 ways). Password protection, two-level how-and-why help screens, and a slew of extra features, but limited accounts payable and receivable. Can upgrade to *Business Sense*. Especially good for rental-property owners, investors, and small businesses. *System requirements:* 512Ke Macintosh; two 800K drives (hard-disk drive optional); System 3.2 or higher. Monogram Software, Inc., (213) 533-5120.

Home Finance System III v3.21 (\$50, plus \$3.50 shipping). Despite its name, can be used by some small businesses—although it's best for personal use. Works with up to 100 "asset" accounts, such as checking or IRAs, and 100 "credit" accounts,

loans and credit cards, for instance. Can divide any transaction into 14 categories with tax codes such as M for medical. Allows for passwords. Limited but useful financial summary reports. Clear manual helps make it easy to get going. System requirements: 256K IBM PC, PS/2; two drives (hard-disk drive recommended); DOS 2.0 or higher; 5.25- or 3.5-inch. Jay Gold Software, Inc., (515) 279-9821.

MacMoney v3.02 (\$120). Easy-to-use package, with some restrictions. Split an account among eight different categories (up to 250 categories allowed). You can departmentalize in a limited way to track separate projects—this could come in handy, for instance, with rental properties. Easy data export to a spreadsheet, database, or word processor. Excellent reporting, including balance sheets and custom reports. Sections on loan and retirement planning. Recommended for home, self-employed, and small businesses. System requirements: 512Ke Macintosh; two drives (harddisk drive recommended); System 3.2 or higher. Survivor Software Ltd., (213) 410-9527.

Managing Your Money v6.0 (\$220, IBM). A smorgasbord of dazzling features beyond the basics, including a great buy-rent-lease analysis, lifeinsurance planning, budgeting, card file, calendar, reminder pad, even a word processor. Create graphs, such as pie or bar, to analyze finances. Budget categories flow into specific lines of tax forms and schedules—a great convenience. Defects: Isn't formal enough for some tastes. Also, when you split a transaction, a balanced entry is not required, which can lead to mistakes. Recommended for those who like a dash of humor mixed with their bookkeeping. Good for home, small businesses, investors, self-employed, and rentalproperty owners. System requirements: 256K IBM PC, PS/2; one drive (two drives or hard-disk drive recommended); DOS 2.0 or higher; 5.25- or 3.5inch. MECA Ventures, Inc., (203) 226-2400.

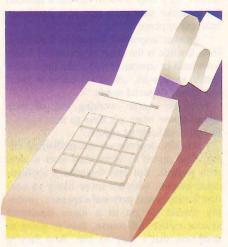
Managing Your Money v2.0 (\$220, Mac). More formal in feel than IBM version, but includes most of the same features and has better graphing. Double-entry accounting is explained in the manual and can be used directly if you choose. Exports to SYLK files (for spreadsheets) and can be used with HyperCard. Recommended for self-employed, investors, rental-property owners and small business. System requirements: IMB Macintosh; two drives (hard-disk drive recommended); System 4.1 or higher. MECA Ventures, Inc., (203) 226-2400.

MoneyCounts v6.0 (\$35, plus \$5 shipping). The least costly personal-finance package, yet with such extras as a mailing-list manager with mail merge and bar graphs for analysis. Up to 100,000 transactions and 999 accounts per year. Offers budgeting, tax planning, card file, pop-up chart of accounts, and automatic double-entry accounting. Upgrade available in MoneyCounts Extra, this program's big brother, for \$70. Complete documentation. Good for small-business use, although navigating from menu to menu is awkward. Reports include accountant's trial balance. Recommended for small businesses. System requirements: 384K IBM PC, PS/2 (640K for MoneyCounts Extra); two drives (hard-disk drive optional); DOS 2.0 or higher; 5.25- or 3.5-inch (\$3 extra). Parsons Technology, (319) 395-7300.

MoneyMate v3.0 (\$70). Might be easiest personal-finance package to use, although some idiosyncratic terms can be off-putting (such as *inflow* for income and *outflow* for expenses). Graphs especially easy to read and print out. Tracks up to 10 checking accounts, 25 credit cards, and 200 categories. Loan-payment calculation, separate cash-

transaction module, cash-flow projection, budgeting, and many other features. Good tax sorting and bill paying. Includes gain/loss reports for securities, net-worth reports, calculator, and notepad. Recommended for home, self-employed, and small investors. System requirements: 256K IBM PC, PS/2; two 360K drives or one 720K drive (hard-disk drive optional); mouse optional; DOS 2.0 or higher; 5.25- or 3.5-inch. Practical Software, Inc., (813) 447-3100.

Smart Money v2.0 (\$80). Basic, menu-driven personal-finance package, with attractive graphing, profit-and-loss statements, budgeting, and loan-amortization schedules. Manual somewhat confusing—it shows icon-based menus that don't exist on-screen, and almost every page splits information between IBM and Apple II versions. Free support for only 90 days. Better for personal than small-business use. System requirements: 128K IBM PC, PS/2; two drives (hard-disk drive optional); DOS 2.1 or higher; 5.25- and 3.5-inch. Sierra On-Line, Inc., (209) 683-6858.



# **EASY ACCOUNTING**

These three programs are good for someone with no accounting knowledge, who absolutely must have a formal accounting system.

DacEasy Light v1.0 (\$70). If you lack accounting know-how, this might be one to consider-although a personal-finance package is probably a better and more powerful choice. Double-entry accounting disguised as check writing and deposits/withdrawals-but it allows traditional general ledger double-entry if you wish. Split a transaction six ways. Calculator and chart of accounts both pop up. Prints invoices and mailing labels, but no payroll facilities. No data export. For very small businesses only; home chart of accounts included, but awkward for home use. Limited free 60-day support; then you must pay. System requirements: 256K IBM PC, PS/2; one drive (two drives or hard-disk drive optional); DOS 2.0 or higher; 5.25- or 3.5-inch. DacEasy, Inc., (214) 248-0205.

Dome Simplified Bookkeeping System v2.0 (\$60). The oddball of the reviewed programs because it cannot write checks, handle more than one checking account, or track accounts receivable and payable. However, as the software version of a popular manual system, it's one of the clearest ways to keep records in a businesslike ledger format. Track payroll for up to eight employees, and split any transaction among as many accounts as you like. Comes with a preconfigured chart of accounts—that can pop up in an on-screen list—and you can add or delete as many as needed. Good range of reports and a manual that's especially helpful for beginners. Geared to the ordinary

small-business owner who is neither a tycoon nor an accounting whiz. System requirements: 256K IBM PC, PS/2; one drive (two drives or hard-disk drive optional); printer optional; DOS 2.0 or higher; 5.25-inch. Great American Software, Inc., (603) 889-5400.

One-Write Plus Accounting System v2.05 (\$299). Based on a manual one-write system, this is the only accounting program I reviewed that someone with no accounting background can easily use. Does double-entry accounting automatically, helps you work with your accountant. Preset pop-up charts of accounts for different business types. Up to 99 departments. Keeps several periods open and lets you change details after closing. Split a transaction 10 ways. Accounts receivable (with invoicing) and accounts payable included; payroll optional (\$149 extra). Extensive reports, including customized ones. Prints to ASCII files. and works with spreadsheets, databases, and word processors using extra-cost DataLink utility (\$59). Well-written documentation with organized tutorial and a booklet for your accountant, but only 30 days of free telephone support. Highly recommended for small business. System requirements: 512K IBM PC, PS/2; hard-disk drive; DOS 2.1 or higher; 5.25- or 3.5-inch. Great American Software, Inc., (603) 889-0910.



### **GENERAL ACCOUNTING**

These traditional-style accounting programs are intended for small businesses with yearly gross sales of at least \$100,000. Some can handle businesses with payrolls of up to 50 people and gross sales of \$1 million to \$5 million. You'll probably need an accountant's help to set up one of these programs properly. Note the features carefully. Also note that you must pay for telephone support (typically \$60 per hour).

ACCPAC Easy Quick Start Accounting Pak v1.0a (\$169). Entry-level accounting software that comes with an accounting training disk and a separate payroll module. Although you are automatically put at the "proper" side of a doubleentry transaction in four out of the six journals, this program can be challenging if you have no accounting knowledge. Includes accounts receivable (with invoicing) and payable. Split transactions 12 ways. No on-line help screens, though, and chart of accounts cannot be viewed while you're entering transactions. Four open accounting periods offer good flexibility, as does excellent import and export facility. Includes 10 departments. Upgrade to two higher levels available. For small businesses. System requirements: 320K IBM PC, PS/2; two drives (hard-disk drive recommended); DOS 2.0 or higher; 5.25- or 3.5-inch. Computer Associates International, (408) 432-1727.

AtOnce! v1.0 (\$395). Takes wonderful advantage of the Macintosh user interface to speed up small-business accounting. For example, extensive pop-up windows let you point and click to get more information on any customer's account. Also, on-screen charts of accounts. Includes general ledger, accounts receivable and payable, and payroll. Reports offer trial balance, actual vs. budgeted, income statements, and more. Prints to screen and has multilevel passwords. No data export, though. Setup is easy, and an interactive HyperCard tutorial is perfect for novices. Recommended for both beginning and experienced bookkeepers. System requirements: IMB Macintosh: hard-disk drive; System 4.2 or higher (6.0 or higher recommended). Layered, Inc., (617) 242-

AXS Accounting Solutions Level 2 v1.1 (\$140). AXS (say "access") offers general ledger and accounts receivable and payable. Extensive tutorial (that's sometimes too cute) helps beginners get up to speed, as do on-screen menus and on-line help screens; but loading modules is very slow. Reasonably easy to use-that is, if you can get used to such murky terms as Scri\_mode for "screen interactive mode." Reports include chart of accounts (which also pop up in a list), trial balance, and income statement. Allows as many checking accounts as you wish, but no data export. Even though publisher says it's for first-time users, package is best for small-business owners with some accounting knowledge. System requirements: 640K IBM PC, PS/2; hard-disk drive; DOS 3.0 or higher; 5.25- or 3.5-inch. Computer Trends, Inc., (313) 662-4430.

Back to Basics: Professional v2.0 (\$199, Mac). Full-featured, with extensive instructions on accounting principles, that, unfortunately, you'd have to be an accountant to understand. Includes accounts payable, accounts receivable, and invoicing. No export of data. Allows for passwords and separate reporting on up to 11 departments. Doesn't take good advantage of Mac user interface. For small businesses. System requirements: 512K Macintosh; two drives (hard-disk drive recommended; required for 512K Mac); System 3.2 or higher. Peachtree Software, Inc., (404) 564-5800

Bedford Integrated Accounting v3.25a (\$249, IBM). Keeps active records in RAM for speed. One of the better programs for a bigger small business. Its many features include 999 profit centers or departments, accounts receivable and payable, inventory with average cost for 999 items, and payroll. Multilevel passwords. Split a transaction 255 ways. Good on-screen reports. Appropriate lists (customer, vendor, employee, etc.) onscreen while working. Exports data to 1-2-3 and most word processors. One of the few accounting packages that lets you view a chart of accounts while writing checks. Best for a business that has a full-time bookkeeper. System requirements: 256K IBM PC, PS/2; two drives (hard-disk drive recommended); DOS 2.0 or higher; 5.25- or 3.5-inch. Computer Associates International, Inc./Bedford Software, (408) 432-1727.

Bedford Simply Accounting v1.05a (\$349, Mac). Has even more accounts available (1,000 each for vendors, customers, payroll; 2,000 for inventory) than Bedford's IBM version. Easy-to-use iconbased menus and a pop-up chart of accounts. Wellorganized manual with many illustrations. Lets you allocate income and expenses to individual projects, perfect for job costing. A complicated but thorough accounting package for the bigger small business. System requirements: 1MB Macin-

tosh; one 800K drive (two drives or hard-disk drive optional); System 4.1 or higher. Computer Associates International, Inc./Bedford Software, (408) 432-1727.

Business Sense v1.2 (\$495). The upgrade package from *Dollars and Sense* Mac. Includes general ledger, accounts receivable, accounts payable, payroll, and invoicing. For analysis, gives you standard financial ratios, such as debts to equity, gross profit margin, and return on assets. Reports can be either text or graphs; will create salescommission statements and mailing labels. Uses icon-based menus; offers on-line, context-sensitive help screens. Decent small-business choice. *System requirements: 512Ke Macintosh (1MB recommended); two 800K drives (hard-disk drive recommended); System 4.1 or higher. Monogram Software, Inc., (213) 533-5120.* 

**DacEasy Accounting** v4.0 (\$150) Somewhat easier to set up than *Bedford*, for instance, because a sample chart of accounts is included. Includes general ledger, accounts receivable, and accounts payable. Heavily slanted toward accrual rather than cash accounting. Multilevel passwords. Best for the bigger small business. *System requirements:* 512K IBM PC, PS/2 (640K for graphics); hard-disk drive; CGA, EGA, VGA; mouse optional; DOS 2.1 or higher; 5.25- and 3.5-inch. Dac-Easy, Inc., (214) 248-0205.

Peachtree Complete II v4.21 (\$199). Bundled double-entry accounting package consists of general ledger, accounts receivable (with invoicing) and payable, inventory, payroll, and job costing. Also offers—for an extra \$199—an extremely useful custom reporting module, with graphs (bar and histogram) and data export to 1-2-3, DIF, Multiplan, or ASCII files. Comes on fourteen 5.25-inch disks (or ten 3.5-inch disks), along with 10 manuals, which include a clearly written accounting primer and tutorial. Detailed accounting for small to midsize businesses. System requirements: 384K IBM PC, PS/2 (512K with DOS 3.3 or higher); hard-disk drive; DOS 2.0 or higher; 5.25- or 3.5-inch. Peachtree Software, Inc., (404) 564-5800.

ProfitWise 1.0 (\$229). Full-featured double-entry package includes general ledger, payroll, and accounts payable and receivable with invoicing. Optional inventory (with job costing) and graphing. Only 10 departments, but multiple companies allowed. Large, detailed manual. Complex, timeconsuming setup, but at least on-screen prompts walk you through the process. Slow loading of modules. Exports data as ASCII text or, with separate utility, as 1-2-3 files. Can automate backups. Supplied on fifteen 5.25-inch or eight 3.5inch disks; can consume 10MB on hard-disk drive. Detailed accounting for the larger small business, but not recommended for those with little or no accounting experience. System requirements: 640K IBM PC, PS/2; hard-disk drive; DOS 3.1 or higher; 5.25- or 3.5-inch. T.L.B., Inc., (419) 424-0422

Rags to Riches v3.1; professional billing, v2.9; inventory, v2.6 (\$200-\$400 each). Double-entry accounting system sold as separate modules: general ledger, accounts receivable, accounts payable (\$200 each), inventory, and professional billing (\$400 each). Also available in packs: General ledger, accounts receivable, accounts payable (\$500); general ledger, accounts payable, inventory (\$650); or general ledger, accounts payable, billing (\$650). Includes on-screen chart of accounts and context-sensitive help. Shows income, expenses, and net worth at a glance. System requirements: 512K Macintosh; two drives (hard-disk drive optional); System 3.2 or higher. Chang Labs, (408) 246-8020.

# A Panoramic View of Publishing

How a Miami-based Writer Used Desktop Publishing to Build a Successful Waterfront Publishing Company

# BY SUZETTE HARVEY

ot interested in the bureaucracy of the big New York publishing houses, Mariana Beeching Prieto, author of several children's books, was delighted to discover a small publishing company in her hometown, Miami. She met Heinz Dinter, founder and publisher of Venture Lifestyles Publishing Company, in November; by January, her book was ready to go to press.

With the help of freelance writers, editors, and artists and an IBM PC AT-compatible computer, Hewlett-Packard LaserJet printer, and desktop-publishing software, Dinter is producing first-quality books much faster and more cheaply than traditional publishing houses. "Thanks to desktop publishing," Dinter says, "we can produce a book in 90 days."

No stranger to the world of publishing, Dinter has written three books on computer technology: Problems for Computer Solution, Executive Decisions for Data Processing Management, and Introduction to Computing. All were published by Macmillan Publishing Company.

Through his experience with Macmillan, Dinter became familiar with the long road from manuscript to bound book. "What makes book publishing so tough," says Dinter, "is pulling together all the pieces—the editing, typesetting, proofing, and designing—before taking it to the printer."

Except for the printing and freelance work performed by editors and artists, all Venture Lifestyles Publishing production takes place on the 24th floor of a luxury Miami condominium, which has a magnificent view of downtown, Biscayne Bay, and the port of Miami. Dinter intentionally configured his work area not to look like an office. "I would never work in an office again," he says. "I don't even own a desk!"

## **MIXING BUSINESS AND PLEASURE**

Situated in what would be the dining

area, his sophisticated computer equipment doesn't seem at all out of place among the huge tropical plants and many artifacts Dinter collected on trips around the world. Surrounded by floor-to-ceiling sliding glass doors, the room offers a 180-degree view of lush islands, the ocean, and an endless sky. At night, Miami's skyline and snaking traffic glitter like jewels.

Dinter, who is divorced and has two grown children, says he thinks of business life and home life as one. "I make no effort

"I don't believe
people should live
Dr. Jekyll and
Mr. Hyde lives. To me,
living and working are
the same thing."

to separate any element by time, space, or action."

"People make the mistake of trying to hide their home offices in back rooms, turning their work environments into prison cells," says Dinter. He advises anyone interested in working at home to choose the most pleasant spot in the house. "You'll probably spend more time on business than entertainment, so why lock yourself into four walls?"

Because of his holistic attitude, choice of staff members is critical, says Dinter. Find people who are compatible with your family, he says. "Ask yourself, 'Am I willing to include this person in my private life?"

Although he wouldn't have it any other way—his lifestyle affords him a twinengine, six-seater airplane and a sailboat—Dinter admits that there are some people who don't appreciate his lifestyle.

"Some clients and friends just don't un-

derstand that you can talk business at home," he says. He's received several negative reactions to his home office.

"I don't believe people should live Dr. Jekyll and Mr. Hyde lives," Dinter says. "Can someone really be happy turning the office on at 9 and off at 5? To me, living and working are the same thing. I never work a fixed schedule."

## THE BEGINNINGS OF THE BUSINESS

In the mid sixties, Dinter started his own business, Computer Management Corporation, in Gainesville, Florida. The company grew to about 50 people and produced affordable turnkey minicomputer systems for small businesses. Although the business was successful and Dinter enjoyed his work, he disliked the office environment.

The personal computer turned Dinter's life around. Computing was undergoing a revolution, and Dinter decided to take advantage of it. In the early eighties, he sold Computer Management, continued consulting, and began exploring desktop publishing.

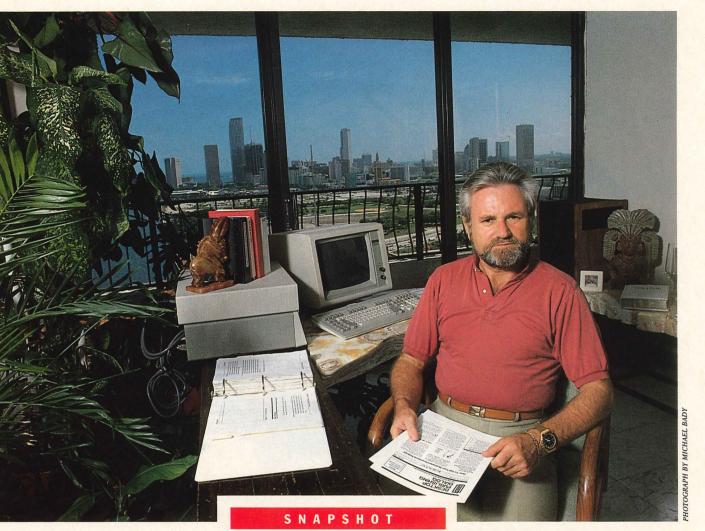
He had had his first taste of publishing at Computer Management Corporation, producing documentation for his clients' programs on a computer. Then, as the director of the University of Florida Computing Center in Gainesville, Dinter started publishing a newsletter and learned the value of this form of communication. "When the personal computer came along, I was really turned on to publishing," says Dinter. "With the addition of a laser printer, the sky's the limit!"

### THE CURRENT PRODUCT LINE

In 1986, Dinter launched *Desktop Publishing Dialog*, a newsletter for small to midsize businesses that use personal computers. (It now has 15,000 subscribers.) *Desktop Publishing Dialog*'s purpose is "to show how to add pizzazz to business documents quickly and inexpensively." News about the publication has spread over the years; Dinter now has overseas subscribers.

His years of experience with newsletter

SUZETTE HARVEY is a writer who lives in Miami, Florida.



production motivated him to start a newsletter service, News for Profit—the editorial base for newsletters that help businesses improve communications.

Five books are also currently in production at Venture Lifestyles—a children's book by Prieto (published in English and Spanish, it targets both adults and children interested in learning either or both languages); Noah's Ark II, a novel by Maurice Labelle, a Miami journalist; Dinter's British associate Lyn Rafe-Lawyer's children's book, Benjamin the Penguin, and her saga of British life, Keep Your Pecker Up; and The Handy Skipper Handbook by two pleasure boating enthusiasts.

Rafe-Lawyer is exuberant over Dinter's stunning office. "I couldn't believe it," she says of her first meeting there. "The view was breathtaking! His philosophy immediately came to life. How can one's creative juices not flow in the Dinter environment? Dinter introduced me, a typewriter maniac, to the computer. Within a few days, I had grasped the rudiments of this incredible machine."

Dinter's office also buzzes with marketing and promotional activities. Although the distribution task is assigned to major book distribution companies, new ideas for pro-

Heinz Dinter, Ph.D., publisher

RESIDENCE: Miami, Florida

BUSINESS: Venture Lifestyles Publishing Company; publishes fiction, nonfiction, how-to books, and newsletters. Nine titles are currently in print, and one of the newsletters has a circulation of 15,000.

EQUIPMENT: IBM PC, IBM PC AT, and Hewlett-Packard Vectra and NCR PC8 (PC-AT-compatible) computers, Hewlett-Packard LaserJet 500 Plus, Toshiba PageLaser12 laser printer, Microtek MS-300A image scanner, Hayes Smartmodem 1200, Cygnet Communications CoSystem integrated telephone, and Sharp 750 copier

SOFTWARE: WordStar International WordStar 5.5, Xerox Ventura Publisher Professional Extension, Publisher's Paintbrush, Lotus 1-2-3, dBase III Plus, and Xpedite

RX FOR SUCCESS: "Given a stimulating environment, I enjoy seeking new challenges and implementing new ideas."

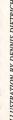
moting the books are a key ingredient of Dinter's success. One idea stemmed from his desire to help others—Venture Lifestyles will donate to charities \$1.00 per book sold. For example, donations for Noah's Ark II sales will go to AIDS research, and donations from sales of The Handy Skipper Handbook will go to support boating safety and environmental conservation.

# **EXPANSION INTO THE TRAVEL INDUSTRY**

In collaboration with Rafe-Lawyer, an advertising and public-relations expert (whom he met when she approached him with her manuscripts), Dinter has launched Business & Pleasure Travelaide, a desktop directory, and Travelaide Bulletin, a monthly newsletter. Scheduled for release in 1990, this comprehensive directory and newsletter will be marketed to travel- and meetingplanning professionals who need frequent updates on the fast-paced travel industry. An editorial board of prominent travel specialists will provide information. The monthly bulletin is designed to feature profiles on industry movers and shakers and pertinent data such as address and telephone changes, rates, and schedules.

In addition to *Travelaide*, Dinter offers a newsletter production service for travel agents. They provide the copy, and he designs and prints the newsletter according to the agency's specifications.

Whether or not this new venture takes off, Dinter's company is everything he ever hoped it would be. The name of his publishing house reflects his philosophy of life. He chose the word *lifestyles* to "remind all of us that life—at home and in the office—should be all about our own style."





# Should You Incorporate?

Here's What Every Business Owner Needs to Know About the Pros and Cons of Sole Proprietorship, Incorporation, Subchapter S Corporations, and Partnership

# BY WESLEY J. SMITH

n 1981, Anne and Richard Cleve bid farewell to their 9-to-5 routine and moved to 128 acres of Tennessee farmland called Elk River Plantation. Anne started growing and selling berries, and Richard opened an engineering firm called Elk River Engineering.

Both businesses were started as sole pro-

WESLEY J. SMITH, an attorney, has written a number of books, including The Lawyer Book: A Nuts and Bolts Guide to Client Survival and The Doctor Book: A Nuts and Bolts Guide to Patient Power.

prietorships. "We decided on sole-proprietor status because it was simple, and it was best for our tax situation," says Anne. Today, their businesses are thriving. Richard recently won a \$90,000 job designing an air-conditioner testing system. Anne has written a cookbook called The Berry Book from Elk River and is about to open the Elk River Plantation's Ginger Bread Cottage, a small inn. Given the growth of both endeavors, is it time for them to incorporate?

To incorporate or not to incorporate? The truth is that the technical classification, or shell, in which you decide to do business has less meaning now than ever before.

Recent tax-reform legislation has removed many of the differences that used to exist between simply running a business and forming a corporation or partnership. In the past, a corporation was the only business classification that could form tax-deductible and tax-deferred pension and profit-sharing plans. Corporations also used to be able to shield assets gained from a liquidation from stockholders' individual returns. And today, income tax rates for corporations are no longer the bargain they used to be.

However, more distinctions between a sole proprietorship, a corporation, and a partnership *do* exist, and it pays to know your options.

## ADVANTAGES OF SOLE PROPRIETORSHIP

According to Los Angeles—based business attorney Dennis G. Harkavy, about 60 percent of the clients who seek his advice on incorporating decide against it once they weigh the drawbacks and the benefits.

"Many, if not most, of the small businesses that are being formed today are sole proprietorships," agrees Gene Fairbrother, spokesperson for the National Association of the Self-Employed. "It's just the nature of the beast. Most people who work from their homes don't take on partners and—if they're not running a high-risk business—don't need the protection from liability risk that incorporation can bring."

There are many advantages to going the sole-proprietorship route:

**Keeping the fruits of your labor.** All of the profits earned in sole proprietorships are the owner's to enjoy. There are no stockbrokers to pay dividends to and no partners with whom to split the pie.

**Significant tax advantages.** In a sole proprietorship, whatever you make is taxed at your level of income. All legitimate business expenses can be deducted as costs of doing business. If you incorporate, not only do you have to pay personal income tax on your salary, but you are subject to further corporate taxes when you try to get the money from the corporation to your pocket. In other words, small businesses running as corporations risk being taxed twice. A corporation pays corporate income tax once, then the individual pays personal income tax on salary drawn from the corporation. Not so in a sole proprietorship.

Also, some states impose a minimum corporate income tax that is not required of sole proprietors.

**Similar benefits advantages.** Before the laws were changed recently, only corporations could offer pension and profit-sharing plans. Incorporated small businesses had established such plans both as a way of avoiding taxes and saving money for retirement. Sole proprietors can now implement these programs with equal benefit, even if they are the only employees of the business.

According to Harkavy, pension and profit-sharing plans provide significant benefits to sole proprietors. "With these plans," says Harkavy, "the government, in effect, partially subsidizes you to help provide for your retirement. Contributions become a deduction against your taxable income, and the income earned by the plans thereafter is tax-deferred—you don't start paying taxes on it until retirement, when you are, presumably, in a lower tax bracket."

Less regulation and red tape. The formali-

ties of running a corporation can complicate even the most streamlined operations. Maintaining a board of directors, conducting meetings, and keeping corporate business records distinct and separate from personal ones can hinder a normally easy-to-run business.

In a sole proprietorship, there is only one tax return to worry about, one profit-and-loss statement, and no board of directors looking over your shoulder. Starting a sole proprietorship usually involves checking that your location complies with local zoning laws, and perhaps applying for some type of business license or filing a fictitious business name statement. Check with your accountant or your city hall to get specific state and community requirements.

# THE DOWNSIDE

There are, of course, some significant disadvantages to operating as a sole proprietorship.

**Unlimited liability.** Risking unlimited liability is one danger of working on your own. If an employee is in an automobile accident while on company business, a product you manufacture proves faulty, or your business causes damage or loss to another person in any way, you are *personally* liable for all damages incurred as a result of the accident. If you've read news stories about businesses being sued, you know that these sums of money are often quite large.

The owner sustains all losses. You may be wondering what happens if your sole-proprietorship business fails. As is the case with unlimited liability, the owner is personally responsible for all business losses. Not only will business assets be subject to attachment by creditors, but so will the owner's personal property. Under sole proprietorship there is no real legal distinction between you and your business.

**Lack of continuity.** Since you are your business, if you die or become incapacitated, your business goes with you. The "entity" of a corporation, however, continues in the event of such misfortune, making it easier for others to keep the business operating. Because of this, sole proprietors should carefully plan for the settlement of their estates.

Even with these drawbacks, however, sole-proprietorship status provides an easy and manageable way to operate a small business.

Jack A. Rameson III, a California-based attorney specializing in probate and trust law, currently runs his practice as a sole proprietor in association with two other lawyers. The three attorneys used to run the operation as a legal corporation but decided to become independent three years ago. They maintain a less formal association for group-health insurance purposes and to maintain the firm's name recognition.

"I just didn't see the need to seek a

corporate shelter to protect myself from liability," says Rameson. "I have malpractice insurance for that. So, I decided to keep my life as simple as possible. For me, sole proprietorship was the way to go."

## THE INCORPORATING OPTION

Of course, not every professional has the option of getting malpractice insurance. To avoid the spectre of unlimited liability, incorporation could be the best choice for the home-based entrepreneur.

A corporation differs from a sole proprietorship in several important ways:

Freedom from liability. Limited liability is incorporation's biggest attraction now that many of the former tax benefits have been eliminated. Under normal circumstances, the corporation owners' liability is limited to the amount of money they have spent purchasing stock. In other words, the shareholders cannot be held personally liable for the actions of the corporation; creditors are limited to the assets of the corporation itself when seeking to collect money that is owed them.

A corporation is a separate legal entity from its owners. Unlike other business classifications, which are treated as alter egos of their owners, corporations are treated virtually like separate people under the law—they can do just about anything that a person can do except vote. Corporations can own property in their own name; they can sue and be sued apart from their owners; they can go into debt; and, in most cases, they must file separate income tax returns.

Once formed, a corporation's existence is continuous. Until the stockholders or the state institutes an action to close down a corporation, its existence is perpetual. Thus, the Ford Motor Company has outlived generations of the Ford family. If a key player in the corporation dies, formal action need not be taken by the corporation itself to deal with the problem, since ownership interest will pass to heirs according to his or her personal estate.

Ownership of a corporation is readily transferable. Since stockholders own corporations, whoever controls a majority of the stock controls the management of the corporation (usually with limitations detailed by certain minority shareholders' rights).

A corporation may find it easier to raise capital. Corporations have a method of raising money not available to other types of business structures—selling stock. If your corporation has the potential to excite investors, you can raise money by selling stock to investors, but they will then control the business proportionately to their holdings in the company.

Incorporating requires formal start-up procedures. The regulations for incorporating vary greatly from state to state. However, in each state, incorporating involves a legal application and registration process. Typically, you have to file Articles of Incorpora-

tion, or a Certificate of Incorporation, with your Secretary of State or Department of State. These forms specify the name and purpose of your company, define the kinds of stock you will make available, and identify the corporation's directors, among other things. Check with your accountant or business lawyer for the specific requirements of vour state.

### THE SUBCHAPTER S CORPORATION

Double taxation is a major drawback to incorporating. However, many incorporated small-business owners can get around this problem by declaring the corporation they manage a subchapter S corporation.

For those who want to enjoy the benefits of limited liability and avoid double taxation, the subchapter S may be just the

ticket. In this variation on the corporate theme, the IRS allows the business owners to declare all income and losses on their individual returns. (Losses incurred by corporations are normally claimed on the corporate return and are not deductible on the shareholders' returns.)

Subchapter S corporations are limited to 35 stockholders, and these stockholders must be individuals. Other corporations cannot own subchapter S stock.

Also, not every state's tax authority recognizes the same tax distinctions that the federal government does for a subchapter S corporation.

Attorney William Rehwald, a convert to the subchapter S business classification, originally ran his law practice as a full corporation. "My accountant advised me to convert when Congress took most of the corporate benefits away." Rehwald states. "I am now taxed as if I were a sole proprietor." When asked why he chose to maintain the corporate shell rather than go to a sole proprietorship, Rehwald gave a practical reply: "Tax laws are always fluid. They changed now, and I'm sure they will change again." If tax breaks begin to swing towards formal incorporation again, Rehwald can easily reclassify his status.

### **REAL ADVANTAGES?**

All of these advantages may seem appealing, but for many small enterprises, the benefits of incorporating may be less valuable than they seem.

For example, even though a corporation's creditors are usually limited to corporate assets when seeking to collect debts, bad debt is not the most likely area for a small business to get in trouble. The financial death knell for many small companies often sounds during the initial financing stage. Most financial institutions require that the owners of small businesses, even corporations, personally sign for all start-up loans. If the corporation defaults on these loans, those who cosigned the loans can be held personally liable. Thus, the advantage of limited liability is compromised.

Limited liability can also be sidestepped if a creditor is able to prove that a corporation has been patently undercapitalized. This practice, often called "piercing the corporate veil," ensures that you cannot create a phantom corporation and expect to be personally protected from liability.

In addition, if you commit certain uncorporate acts, such as paying your personal expenses with corporate assets or failing to hold regular shareholder and board of directors meetings, among others (in essence, if you run the company as a sole proprietorship), the veil of the corporation as a separate entity can be pierced in order to protect creditors from injustice.

# WHICH WAY TO GO

Deciding how to operate your business involves complex factors that have merely been touched upon here. Each business' circumstances must be treated individually. The sole proprietorship structure that works for your cousin's bookkeeping firm may not be right for your consulting business. Remember that there is no cut-and-dried rule for any business—no matter how long it's been around, how much money you make, or how many people you employ.

You should consult an attorney before making a final decision about which operating structure to select. But, ultimately, it is your responsibility—the home-based entrepreneur, the one who knows better than anyone else how you want your company to run—to select a good fit for your operation, your finances, and your personal business style.

# PARTNERSHIPS: RISKY BUSINESS

A partnership is a specialized form of proprietorship that is based on specific regulations and agreements.

There are two basic types of partnership: general partnerships and limited partnerships. The two classifications are quite different.

A general partnership exists when two or more people agree to pursue a business venture. A limited partnership occurs when investors, known as limited partners, fund a business to be operated by the general partner or

General partnerships are, in many ways, similar to sole proprietorships. While a partnership must file an informational tax statement with the IRS, profits and losses are carried on the partners' individual returns. Also, general partners face similar unlimited liability for all partnership debts.

Entering a partnership can be risky. According to attorney Dennis Harkavy, "You don't go into a partnership any more lightly than you would enter a marriage—because that's what a partnership is; a business marriage."

A partnership lives and dies by what is known as the partnership agreement. A partnership agreement can be oral or written. It can be as simple as a handshake and an agreement to share profits of a venture equally or as involved as an extensive legal document drafted by legions of high-paid lawyers.

Here are some of the issues to address when forming a partnership agreement:

How will profits and losses be divided? Partnerships can divide a business's profits and losses unequally. For example, if you bring more money or expertise to the business than your partner, you can receive a larger slice of the pie.

How will the partners be paid? Technically, the only compensation you receive is proceeds from the business. However, you or your partner can elect to take a draw against profits. The amount of the draw, if any, and the extent of profit disbursement are just two things to decide on.

How will the partnership be capitalized? It takes money to go into business. One way to form a partnership is by contributing funds to the venture's operation. The partnership agreement should specify what each partner's initial contribution will be. It should also detail your

agreement about raising funds to finance the growth of the partnership if they are needed.

Who makes the decisions? When more than one person is involved in a business, there will be more than one point of view brought to the decision-making process. The agreement should provide for a solution to a stalemate—is unanimity required; should a mediator be sought; should a "czar" who will have final say be appointed?

What happens if a partner becomes disabled? It's a good idea to specify what will happen to you or your partner's interest in the partnership should one of you become disabled and unable to contribute to the venture's progress. The agreement should also define what constitutes a disability. Partners sometimes use disability insurance to cover such possibilities.

What happens if a partner dies? When a partner dies, technically the partnership is terminated unless otherwise stated in the partnership agreement. Most agreements take the possibility of a partner's dying into account and specify what will happen should a death occur either by using life insurance proceeds to buy out the deceased partner's heirs or by allowing the heirs to gain the deceased partner's interest.

### LIMITED PARTNERSHIP

Limited partnerships are a sort of cross between a partnership and a corporation. The main distinction between a limited partnership and a general partnership is the limited partners' exclusion from full liability.

In this classification, a limited partner invests in your business and is rewarded for that investment according to a formula set forth in an agreement, which, unlike a general partnership agreement, must be set in writing. But because a limited partner's involvement is restricted primarily to fiscal backing, he or she has no impact on the day-to-day management of the business.

The limited partner's trade-off for being restricted from the management of the partnership is the limited liability he or she is accorded by law. The most a limited partner can be liable for, like a stockholder in a corporation, is the amount of his or her investment in the business.

# Low-cost 386-based Computers

Buying Direct Through the Mail, You Can Save Money Without Sacrificing Service

BY HENRY F. BEECHHOLD

omputer magazines abound with advertisements for computer systems at prices 10 to 40 percent below those of your local computer store. But should you buy something as complex and expensive as a computer by mail or phone? Yes and no.

First-time computer buyers may feel more comfortable shopping in a store. It gives you a chance to examine a variety of computers, actually try them out, and ask questions. Also, buying from a store can simplify life when the time comes for repairs; you can carry your equipment in instead of shipping it out.

More experienced users, however—those who are familiar with what's available and know what they need—can acquire good, reliable equipment through the mail, backed by strong warranties and service policies—and save big money.

That's why we've chosen to review five 386-based computers, all sold through the mail. Owners of aging PCs, XTs, and ATs who want to upgrade to more power and speed should consider these high-powered 386-based computers. They range in price from \$3,500 to \$4,500 (an equivalently equipped Compaq Deskpro 386/20e sells for about \$6,000).

Like all 386s (based on the Intel 80386 microprocessor), these are capable of running Operating System/2 and *Presentation Manager*. OS/2 allows you to break MS-DOS's 640K barrier and access up to 16MB of RAM at once. *Presentation Manager* works with OS/2 to provide a graphical interface, complete with icons. With *Desqview 386* or *Windows/386*, they are capable of running several programs at once—you could be uploading a file while recalculating a spreadsheet.

Contributing editor HENRY F. BEECHHOLD, cowrites the IBM/MS-DOS Machine Specifics column and regularly reviews hardware.



# **EVALUATING MAIL-ORDER OUTFITS**

In the past, getting service for a mailorder computer was difficult. But things are changing. Three of the five following companies offer free on-site repair service. Another offers this service for a fee.

It is always important to check up on a mail-order company's reputation. Call the Better Business Bureau or the ConsumerProtection Agency in the state where the business is located to find out how long it has been operating and what type of complaints, if any, have been filed. Check the ad for company policies concerning returns, repairs, guarantees, and after-sales technical support—read the fine print. I wouldn't buy from a mail-order firm that didn't offer an unconditional, 30-day full refund and a one-year (or longer) warranty. (All the computers reviewed here have a warranty.)

If there is such a warranty, call and ask about repairs. Does the company have an inhouse repair facility? If not, how are repairs handled? Does the company offer an on-site repair program? That's the ideal policy, so you don't have to ship the equipment back to the shop when it needs repairs. Can the service contract be extended beyond the original period? How much do yearly extensions cost? A solid, reliable company will be happy to discuss these matters—a desk-and-telephone vendor peddling -mystery products won't.

You might also ask if the computer will be "burned in" (left running for several hours), before shipment. A 24- to 36-hour burn-in will usually turn up incipient problems. MicroExpress, for instance, claims a burn-in time of 72 hours on all computers. And ask if the computer will be ready to go to work as soon as you plug in the cables. If additional setup is required, the vendor should tell you exactly what to expect.

# MAIL-ORDER PRICES

Mail-order prices that sound too good to be true may well be. Often the price in large print is for the bare bones. For example, you'll find ads for 20-MHz 386-based computers selling for \$1,700 to \$2,000. But that includes no video card, no monitor, no hard-disk drive, and no second floppy-disk drive. And don't forget to add the cost of DOS or other system utilities you might need. By the time you've added these items,

the \$2,000 computer costs \$3,000 or more.

A word to the wise: *Never* pay by check or any other cash instrument (money order, for example). Pay by credit card and you'll have at least some recourse if a problem arises.

### 20-MHz 386-BASED COMPUTERS

The 20-MHz model offers the best performance for the price in the 386 market today. The five computers reviewed here cost from \$3,500 to \$4,500. That price buys you a fully configured computer, including shipping costs. All run at a clock speed of 20 MHz (with zero wait states), which is about

five times faster than the original IBM PC and about three times faster than most ATs in use today.

A 20-MHz 386-based computer costs about \$1,000 more than a 16-MHz computer—and gives you about 20 to 25 percent more speed. That's a good trade-off if you use a computer often enough and intensively enough to take advantage of the speed. A 25-MHz computer—which is about 20 to 25 percent faster than a 20 MHz computer—can cost as much as \$2,000 more. In most cases, it's probably not worth it.

All computers reviewed here come with 40MB (or higher) hard-disk drives. All have

at least five available expansion slots, carry at least a one-year warranty, and offer toll-free technical support. And all systems include a VGA color monitor. Though some used an 8-bit VGA card and others a 16-bit card (see chart), the displays were equally good down the line, except for the Tussey Swan

Balancing the variables—performance, features, dollar value, company reputation, and support—I would place CompuAdd and Dell at the head of the pack, MicroExpress and Zeos closely behind, and Tussey trailing just a bit. The reviews that follow provide the details.

# Five 20-MHz 386-based Mail-order Computers Reviewed

# EDITORS' PICK ★

# CompuAdd 386/20

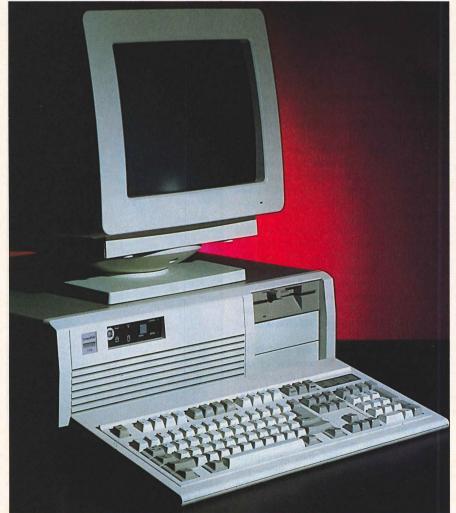
RATING: ★ ★ ★

The CompuAdd 386/20 is a solid, if not dazzling, performer backed by a large, reliable mail-order company that has grown from merely selling computers to designing and manufacturing them. (CompuAdd also sells computers through 50 of its own retail outlets.) Since the company sells a complete line of computer products, options for assembling a customized system are extensive.

Although the CompuAdd computer enclosure has an undistinguished, generic look, it is well built and furnished with high-quality components. The Key Tronic 101-key enhanced AT keyboard (with a large Return key and function keys across the top) is sharp to the touch. The input and output ports are built into the system board—of CompuAdd's own design and manufacture—freeing at least one expansion slot. I tested a mouse card and a modem card from an XT. Both of these cards worked perfectly, so presumably all standard cards will work well.

The computer comes with *Integrator*, a set of desktop accessories that includes Calculator, Cardfile, Appointment Calendar, Editor, File Manager, PC-FullBak (harddisk backup), System Setup, and Menu Builder.

The DOS manuals are printed to Compu-Add's specifications, as are the system setup manual and the *Integrator* software manual. The rest of the manuals (VGA card, memory management, disk-drive installation) are supplied by the individual manufacturers.



The CompuAdd 386/20 is an aggressively priced computer (don't forget to add two percent to the advertised cost for shipping),

and well supported by outstanding customer service that has kept pace with the company's rapid growth.

# 🛨 EDITORS' PICK 🛨

# Dell System 310

RATING: ★ ★ ★

Feature for feature, you'll pay a little more for the Dell 310 than for the other computers reviewed here (perhaps they spend more on glossy advertising). However, I'm greatly impressed with the polished look and feel of the System 310.

The 310's distinctive front panel is clearly custom-designed, unlike those of most generic-looking mail-order computers. The VGA monitor is customized with the Dell logo and color scheme, unlike those supplied with the other systems reviewed. The Key Tronic 101-key enhanced AT keyboard comes with a Dell nameplate, but it's exactly the same as that supplied with the CompuAdd 386 (and many other computers). The computer's system board, however, is made by Dell.

The documentation provided with the System 310 is outstanding. All the manuals are clearly designed as part of a coherent package—the covers even match the computer. The start-up and troubleshooting manuals are beautifully illustrated, anticipating any question you may have about any part of the computer. Included with the DOS and BASIC manuals is a separate book devoted to Dell's special DOS enhancements. I've looked at a heap of computer manuals in my time, but only a few can match Dell's style and quality.



A supplemental disk-based system tutorial both teaches you how to use your computer and shows off the VGA video system. Another program, *Dell System Analyzer*, is a menu-driven set of utilities for setting up and testing the computer—this is one of best examples of this type of software I've seen. The Dell 310 arrives with its hard-disk drive fully formatted and ready to use.

Of the computers reviewed here, I think that the System 310 is the most together. Customer support and on-site service are impeccable. All the components—hardware and software—are parts of a coherent package, in the manner of computer systems from, say, IBM, Compaq, and AST. This coherence does have a price, but Dell is still cheaper than the big-name brands.

# MicroExpress 386-20

RATING: ★ ★ ★

MicroExpress is one of many young companies trying to find a place for itself in the mail-order micro world. Like many that came earlier and prospered, MicroExpress is a packager: The company buys components from various original equipment manufac-

turers (OEMs) and puts them together under its own logo. In order to get your attention, packagers price their products below the better known names.

The MicroExpress 386-20 wins no prizes for cosmetics. The enclosure is standard generic; ditto the keyboard, which feels mushy and uncertain. Appearance and keyboard aside, however, the computer is solidly built

and carefully assembled. The system board is manufactured by American Megatrends, Inc. (AMI)—one of several companies in the OEM board business—which supplies assemblers who don't do their own board design and manufacturing. AMI boards, I should say, are well made and respected in the business.

Current documentation is a hodgepodge of photocopied materials, but the company assures me that professionally printed documentation is on the way and will be shipped to all purchased of a MicroExpress 386-20.

The software consists of one disk of system diagnostics and miscellaneous utilities and two disks of Paradise VGA video utilities and drivers. The hard-disk drive comes set up and ready to run. During bootup the system status (memory, drives, etc.) is reported in a panel occupying the top third of the screen.

Clearly, MicroExpress is working hard to develop a reputation for offering high-performance, reliable equipment at reasonable prices. The company burns in each machine for 72 hours before shipment, and its 15-month warranty is the longest of the computers reviewed here. In the course of a long test run, I found no reason to doubt this computer's reliability.



# Tussey Swan 386/20T

RATING: ★ ★

Tussey is a rapidly growing mail-order house specializing in MS-DOS products, including a line of computers packaged under the company's Swan house brand. The Swan 386/20T is beefy, larger and heavier than any other reviewed here, with a totally different design. It has a tower configuration, much like the IBM PS/2 Models 60 and 80, and is meant to stand on the floor, not on a desktop.

I was impressed by the clever design of the two sets of swivel-mounted feet. Swiveling one foot causes the other to move out, too. Even though the feet are made of plastic, they are tough and provide a sturdy base for the computer.

Tussey offers two 101-key enhanced AT keyboards—"silent" and "click." For me, the click unit that came with the test unit has just about the right feel. The display quality of the VGA monitor doesn't quite match the sharpness of the others in this group. In addition, the Swan is the only computer reviewed here that has no cache-memory system, which results in the lowest effective processing speed of the group, at least according to my tests. (Cache memory is a block of superfast memory that holds data the CPU can access and process.)

The three-ring system manual (without an index) sufficed to get me through the basics of hookup and start-up, but not much beyond that. At the very least, the writer



should not have used the contraction it's when the possessive its was called for.

Manuals for the other pieces of equipment—disk controller card, I/O card, and VGA card—add up to a ragtag collection, typical of those provided by many lesserknown computer packagers. Before the Swan can be considered a serious contender, it will need a better screen display and better documentation.

# **ZEOS 386-20**

RATING: ★ ★ ★

Zeos is yet another relatively small company making a name for itself as a packager of

reliable computer systems at prices well below those of the major brands. The 386-20's strong suit is speed; in my tests it was nearly as fast as the Dell System 310.

The system unit enclosure has more style



than most of the lesser-known computers. The keyboard, like the others in the group, is a 101-key enhanced AT type. It is well made, with the touch that I like. (If you're looking for a replacement keyboard for another computer, Zeos sells this honey separately.) The AMI system board is essentially the same as that used by MicroExpress.

Software consists of system and video utilities. The three-ring system manual was enough to get me up and running, but it sure didn't overload me with information. Video-card information is supplied by standard Paradise hardware and software manuals. Other small manuals deal with the I/O card, the disk-controller card, and the memory-management software. For some reason, no DOS manual was included in the package (though the company says this was a mistake), even though DOS 3.3 is installed on the hard disk. Documentation is a miscellaneous collection—nothing like Dell's integrated collection.

However, for about \$500 less than the Dell System 310, the Zeos 386-20 gives you larger cache memory and a higher-capacity hard-disk drive. For experienced users who don't need much documentation to get them going, I think the Zeos 386-20 is quite a system. ■



# SIDE-BY-SIDE COMPARISON: FIVE 20-MHZ 386-BASED COMPUTERS

In this chart, you'll find the specifications for the five computers reviewed in this buyer's guide. These complete systems consist of at least 1MB of memory (RAM), a keyboard, a 1.2MB 5.25-inch and a 1.44MB 3.5-inch floppy-disk drive, a 40MB (or higher) hard-disk drive with an access speed of 28 milliseconds (ms) or lower, VGA output (either built in or on a card; 8-bit or 16-bit), a parallel port, one or two serial ports, and DOS. The total cost also includes a VGA color monitor.

The chart includes the cost for a basic configuration (the large-print number you see in an ad or catalog); the cost of additional hardware needed to make it a complete system; and the shipping charge (usually not included in the price). You may need to add the necessary sales tax, depending on where you live.

All the models have at least five free expansion slots, enough for your

basic expansion needs. Three types of expansion slots are listed in the chart: AT (8/16-bit); PC (8-bit); 32P (32-bit proprietary memory slot). In the maximum memory column, we list the amount of RAM you can add to the system without using a memory expansion card. Tussey is the exception; it comes with a memory card that allows you to add up to 16MB of RAM. All five computers run at a clock speed of 20 MHz, and all have zero wait states (which means that the microprocessor is running at its maximum efficiency).

Computing speed is also affected by the speed of RAM; however, high-speed (80 nanoseconds [ns] or faster) RAM is expensive. So, many manufacturers use a RAM cache and slower (100 ns) RAM, a less expensive alternative. Faster 386-based computers (25 MHz and 33 MHz) employ both high-speed RAM and RAM cache to maximize performance.

	CompuAdd <sup>1</sup>	Dell	MicroExpress	Tussey	Zeos	
Model	CompuAdd 386/20	Dell System 310	MicroExpress 386-20	Tussey Swan 386-20T	Zeos 386-20	
Rating	***	***	***	**	***	
Basic Configuration Cost	\$3,225	\$4,199	\$3,549	\$3,248	\$2,995	
Additional Cost DOS 3.5-inch 1.44MB Floppy-disk drive VGA color monitor	\$89 (Ver 4.01) \$89	\$120 (Ver 4.01) \$130	\$75 (Ver 3.3) \$130	\$99 (Ver 4.01) \$134 (includes \$25 installation charge) Included	\$119 (Ver 4.01) \$159 \$595 (upgrade to VGA)	
Subtotal Shipping Cost	\$3,403 \$68 (2% of subtotal)	\$4,449 Included	\$3,754 \$45 (flat fee)	\$3,481 \$97 (3% of subtotal)	\$3,868 \$45 (flat fee)	
Total Cost	\$3,471	\$4,449	\$3,799	\$3,578	\$3,913	
States That Charge Sales Tax	AZ, CO, CT, FL, GA, IL, KS, LA, MA, MD, MI, MN, MO, NB, NC, NJ, OH, TX, WI	TX CA		PA	MN	
Credit Cards Accepted	AE, MasterCard, Visa	AE, Discover, AE, MasterCard, Visa MasterCard, Visa		AE, Discover, MasterCard, Visa	MasterCard, Visa	
Surcharge On Credit Card	No	No No		No	No	
Year Company Established	1988	1987	1989	1987	1988	
Standard/Maximum Memory	1MB/4MB	1MB/8MB	1MB/4MB	1MB/16MB	1MB/8MB	
Floppy-Disk Drive	5.25-inch 1.2MB	5.25-inch 1.2MB	5.25-inch 1.2MB	5.25-inch 1.2MB	5.25-inch 1.2MB	
Hard-Disk Drive (Capacity/Access Speed)	40MB/28 ms	40MB/28 ms	40MB/28 ms	80MB/28 ms	65MB/28 ms	
Ports	Parallel, 2 Serial, VGA (8-bit)	Parallel, 2 Serial, VGA (16-bit)	Parallel, Serial, VGA (8-bit)	Joystick, Parallel, 2 Serial, VGA (8-bit)	Parallel, 2 Serial, VGA (16-bit)	
Available Expansion Slots	1 32P, 4 AT	1 32P, 4 AT, 1 PC 1 32P, 4 AT		4 AT, 2 PC	1 32P, 4 AT, 1 PC	
Microprocessor Speed (MHz) Wait States (cycles)	20	20 0 20 0		20 0	20 0	
RAM Cache	32K	32K 64K		None	64K	
Warranty (months)	12	12	15	12	12	
On-Site Service Included (months)	12	12	4	Not available for home office	Optional (\$100 first year)	
On-Site Service Provided By	Memorex Telex	Xerox	National Warranty	Not available	Moore Data	
Service Contract Restriction	Within 75 miles of a Memorex Telex office	Remote area will incur additional travel charges	Within major metropolitan areas only	Not available	Within 100 miles of a Moore Data office	
30-Day Refund Policy	Yes	Yes	Yes	Yes	Yes	
Toll-Free Technical Support	Yes	Yes	Yes	Yes	Yes	
Telephone	(800) 627-1967	(800) 426-5150	(800) 642-7621	(800) 468-9044	(800) 423-5891	
<sup>1</sup> CompuAdd also has 50 stores	s in 19 states; sales tax is add	ded where applicable.	The same of the same	THE STATE OF THE S		

# Two for the Road

BY STEVEN C.M. CHEN AND MARIE ALVICH

# Portable Printers that Pack a Lot of Power

The increasing availability of portable office equipment—computers, fax machines, telephones—is breeding new workstyles for many businesspeople. When necessary, they can virtually tuck their offices into a briefcase and take them along wherever they go. In the traveling office environment, a portable printer is becoming an increasingly crucial accessory for many users.

Basic factors to consider in shopping for a portable printer are ruggedness, speed, output quality, software compatibility and emulation, paper handling, weight, and size. Be aware, though, that you may not find *all* the qualities you're looking for in one unit; portables are not (yet) a viable substitute for a full-featured desktop printer.

Ideally, a portable printer should be small, lightweight, sturdy, and above all, reliable; it should work as well on the hotel coffee table as it does on the office desktop. Beyond that, it would be nice if the printer were both quick and elegant. Unfortunately, the last two qualities are not currently available in the same model. Present technological realities dictate compromises in print speed, print quality, or both.

Be aware that the printing speed of a portable is likely to be much slower than that of a desktop printer. Most portables print at about 100 characters per second (cps) in draft mode, while many desktop 24-pin dot-matrix printers cruise at 200 cps or faster. This means that printing out a letter on a portable printer could take twice as

To ensure compatibility with most software, make certain that the portable printer you choose can emulate one or more of the following printers: Epson FX or LQ series, Toshiba/Qume, Okidata, or IBM Proprinter.

long as it would on a desktop printer.

Some portable printers can handle both continuous-form paper and single-sheet paper; some use only one or the other. Beware of portables that print on thermal paper (similar to fax paper)—business documents won't look too impressive on it. Don't expect any exotic paper handling from these dwarfs either—they just do their job and that's all.

STEVEN C.M. CHEN is managing technical editor for HOME-OFFICE COMPUTING. MARIE ALVICH is associate technical editor.





The Kodak Diconix 150 Plus (left) and Toshiba ExpressWriter301 weigh less than five pounds each.

Weight and size obviously are crucial factors. If you are carrying around a laptop computer (approximately 13 pounds), a portable printer and its cable, plus AC adapter, battery, and paper will add an additional six or seven pounds to your cargo, bringing it up to 20 pounds or so. And although these printers are small, they may not fit in your laptop carrying case. You may have to make some room in your suitcase.

The two new portable printers reviewed here are nonimpact printers (so they, are quiet); both are capable of printing graphics as well as text; both require a computer with parallel port and cable. They weigh about the same—around four pounds. However, each uses a different printing technology: The Kodak Diconix 150 Plus employs inkjet printing (relatively fast) and the Toshiba ExpressWriter301 uses a thermal-transfer printing process (relatively clear).

# **REVIEWED IN THIS ISSUE**

### **Computers:**

Bondwell B300 Laptop Toshiba T1200 HB Laptop

### **Portable Printers:**

Kodak Diconix 150 Plus Toshiba ExpressWriter301

### Modem:

Racal-Vadic 2400LC

## **Hand-held Electronic Organizers:**

Psion Organiser II Model LZ Sharp Wizard Model OZ-7000

# **ABOUT THIS MINIGUIDE**

These two portable printers are the newest on the market. They represent two well-known companies with excellent reputations for producing top-notch products. Both provide good customer support and service.

### Kodak Diconix 150 Plus

RATING: ★ ★ ★

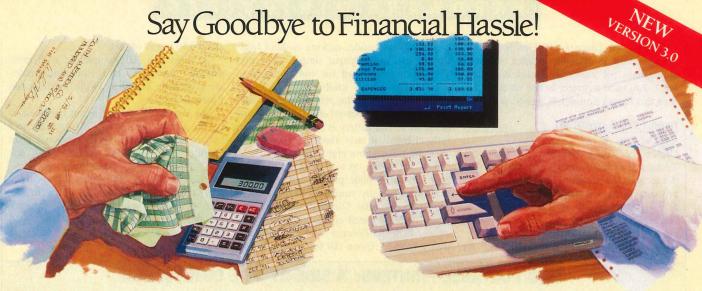
The first thing you'll notice about the Kodak Diconix 150 Plus is that it doesn't look like a printer. It's about the size of an MS-DOS manual, and it has no platen knob for advancing paper. The 150 Plus has three controls on the front panel: an online/offline button, a line-feed/form-feed button, and a font button. Both the AC adapter and printer cable connectors are located on the left side.

The output of this inkjet printer is a little better than that of a typical 9-pin dot-matrix printer. Using special inkjet paper produces slightly better results, although regular continuous-form paper will do the job fine. You can use single-sheet paper, but I recommend staying away from it because it's difficult to insert into the printer. The replaceable inkjet printhead cartridge (\$12 to \$14) lasts for about 500 pages of text.

The normal printing width of a narrow-carriage printer is 8.5 inches, but the maximum printing width of the Diconix is 7.1 inches. Its print speed of 145 cps (in draft pica mode) is acceptable, but the near-letter-quality (NLO) speed of 44 cps is quite slow.

If your software doesn't support either the Diconix 150 Plus or the original Diconix 150 printer, two emulation modes, Epson and IBM Proprinter, are provided. These allow for greater software compatibility.

The printer doesn't come with a built-in battery, so if you plan to use it when you're not near an AC outlet, you'll have to buy batteries separately (it requires five rechargeable C batteries). Removable batteries offer an advantage over the built-in type: You can just take out the dead batteries and pop in five fresh ones. (Recharging takes about 10 hours; batteries last for 50 minutes of continuous printing.)



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WORLD

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- New wallet-size checks
- · Variable monthly budget report
- Data import and export · Canadian dates and tax categories
- · Links with CheckFree,™ the nation's electronic payment system

### SPECIFICATIONS

Software Compatibility: Imports from Check-Free and ASCII. Exports to ASCII, Lotus 1-2-3, Symphony Quattro Excel®

Hardware Compatibility: All IBM® PC, XT, AT® PS/2, and compatibles with 320K RAM and DOS 2.0 or higher. Works with your printer and monitor; we guarantee it.
Capacity: Unlimited number of bank accounts and transactions (subject to available disk space). Maximum amounts to \$9,999,999.99.

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### MINIGUIDES ARDWARE

Overall, the Diconix 150 Plus is a good, general purpose portable printer. It's not appropriate for important business letters, but if you need a printer to use on the road, then this Kodak portable is a good prospect.

# Toshiba ExpressWriter301

RATING: ★ ★ ★

Unlike the Kodak Diconix 150 Plus, the Toshiba ExpressWriter301 incorporates 24dot technology as part of its thermal-transfer process, using a film ribbon and plain paper. Its print quality is surprisingly good, resembling that of a 24-pin dot-matrix

use as a paper guide, making manual feeding of single-sheet paper simple. (The machine is not equipped for continuous-form paper.) The platen knob, density control knob (for adjusting the print darkness), and power switch are located on the right side of the printer. The battery is built in, and when fully charged, it lasts about one hour. (Recharging takes about eight hours.)

The 301 prints up to 8.5 inches across a page. Its draft-mode print speed of 60 cps is slow, especially compared to the 145 cps print speed of the Diconix. On the other hand, its NLO speed of 42 cps is only a bit slower than the Diconix's 44 cps. The 301 This four-pounder's cover opens up for uses a snap-in ribbon (\$9 for two), good for

about 150 pages of text.

To make the 301 compatible with most software packages, two emulation modes are provided: Toshiba (24-pin models) and Epson LQ Series.

The ExpressWriter301 is not designed to be an all-purpose printer. Its speed isn't blazing, but it does have exceptional print quality. Also, Toshiba boasts about the 301's reliability—its mean-time-before-failure (MTBF) is 25,000 hours. That's three times higher than Diconix's mere 8,000hour MTBF. If you need a portable printer that produces high-quality output, and speed is not of the essence, the ExpressWriter301 is worth a look.

# TWO PORTABLE PRINTERS: A SIDE-BY-SIDE COMPARISON

	Suggested		Speed	(cps)	Pa	per	Maximum Paper	Maximum Printing	Buffer	Built-				
Company/Model	Retail Price	Туре	Draft (pica)	NLQ (pica)	Cut- sheet	Fan- fold	Width (inches)	Width (inches)	Size (bytes)	in Fonts	Printer Emulation	Dimensions (inches)	Weight (pounds)	Warranty (months)
Kodak Diconix 150 Plus (800) 255-3434	\$499 <sup>1</sup>	Inkjet	145	44	Yes	Yes	9.0	7.1	2K	5	Epson FX-80, IBM Proprinter	10.8 by 6.5 by 2	3.75 <sup>2</sup>	12
Toshiba ExpressWriter301 (800) 457-7777 (714) 583-3000	\$489	Thermal-transfer	60	42	Yes	No	8.5	8.5	2K	5	Epson LQ-850, Toshiba	12.2 by 5.5 by 3	4	12

<sup>1</sup>Serial version available for \$519. <sup>2</sup>3.1 pounds without battery.

Hot Hand-held Electronic Organizers

BY PASQUALE M. CIRULLO

# **Are They Better Than Your Appointment Book?**

Since my college days, I've been using a Week-At-A-Glance calendar/organizer. It helps me keep track of appointments, telephone numbers, and various notes. But I never really liked having to write notes in one section of the book and then rewrite them next to appointments in the calendar section so I could refer to them quickly.

After graduating from college, I discovered SideKick, a RAM-resident program from Borland International. SideKick did everything my Week-At-A-Glance did, but did it on my computer. I could link appointments with notes quickly and easily.

SideKick wasn't perfect either. I had to keep my computer on all day to enter or access information, and if I was away from my computer, I had to refer back to the



# **ABOUT THIS MINIGUIDE**

The Psion Organiser II Model LZ and the Sharp Wizard Model OZ-7000 are two top-ofthe-line hand-held electronic organizers.

Two similar well-known organizers on the market are the Casio Model SF-8000 and the Atari Portfolio. At press time, they were not available to us for review. Their features and prices are comparable to those of the Psion Organiser II and the Sharp Wizard.

Week-At-A-Glance for phone numbers, appointments, and notes.

I have longed for a combination of these two methods of organization. So when HOME-OFFICE COMPUTING asked me to review the Psion Organiser II Model LZ and the Sharp Wizard Model OZ-7000—two hand-held electronic organizers—I jumped at the chance.

Both products were designed to replace a personal calendar/organizer like the Week-

PASQUALE M. CIRULLO is a microcomputer programmer/analyst for John Wiley and Sons, Inc., in New York City.

# HARDWARE MINIGUIDES

At-A-Glance while adding something extra—the ability to transfer information to and from a computer. And both the Psion Organiser II and the Sharp Wizard achieved this goal admirably. Almost anyone who's unhappy with his or her present system of keeping track of appointments, phone numbers, and notes will benefit from one of these ingenious electronic devices. Let's take a look at the features of each model.

### **APPEARANCE**

The size, shape, and weight of the Psion Organiser II remind me of a calculator. The difference is that the Organiser has 36 keys and a four-line display. The keyboard includes the alphabet (in alphabetical order, not the standard QWERTY format found on typewriters), and 10 special operational keys. The numeric keys (0 to 9) are embedded in the alphabetic keys. When you first turn on the Organiser, you see a 13-item menu that lets you access the different functions outlined below.

The Sharp Wizard opens like a book. You are presented with a 73-key keyboard on the right side and an eight-line display on the left. The 73 keys are divided into three sections. The top section has keys to access the eight functions (Calendar, Schedule, and Memo, for example), as well as the On and Off keys. The middle section contains the alphabetic keys (also in alphabetical order) and 12 editing keys. The lower group of calculator keys includes a numeric keypad and 15 math function keys.

The Wizard's eight-line display can be changed to display four lines of larger characters. The lower portion of the left side has a slot for optional software cards (called IC cards). These cards contain programs that supplement the standard functions of the Wizard, such as a time/expense manager.

### **FUNCTIONS**

Both organizers perform the same eight functions. Neither is easier to use than the other—it's a matter of personal preference.

**Clock.** Both organizers offer a local and world clock. The local clock displays the current date, time, and home city. (If you're on the road, you can change the home city.) The world clock works the same way, only it tells you the date and time in any one of more than 200 cities.

In addition to the date and time, the Psion Organiser II gives you country codes for making international telephone calls. Psion also incorporates a stopwatch and a timer into the Organiser II's clock.

Calculator. Both calculators can perform the basic math functions. While Sharp added a square-root function to its calculator, Psion incorporated SUM, MEAN, STD (standard deviation), VAR (variance), MAX (maximum), and MIN (minimum) functions.

**Calendar/Schedule.** The calendar and schedule functions are actually two separate operations—a monthly calendar and a daily schedule. Combined, these two functions

give you an overview of your monthly, weekly, and daily schedules.

The Psion's monthly calendar shows you the present month and allows you to switch to any day or month by using the arrow keys. You can enter appointments for a particular day with the calendar function also. On the Wizard, the monthly, weekly, and daily schedule are under its calendar function and appointments are under its schedule function.

**Telephone Book.** The telephone directories of these two products are very different. The Psion stores the numbers in a general file, not one specifically for telephone numbers. Instead of using a telephone function, you instruct the Psion to store information—be it a telephone number or some other data. You then search for the desired information with keywords.

The Wizard, on the other hand, has a dedicated telephone directory that is separated into three parts, to be named anything you wish—for example, Business, Personal, Other. The directory provides an information entry form; just fill in the name, number, and address. You can search for a particular number sequentially (going through all the names), by name, or by keyword (typing in a word that appears in the record).

**Notepad.** The organizers' notepads are very similar. You simply invoke the notepad function (Notes on the Psion, Memo on the Wizard) and start typing. Searching the notes for some particular information can be

# TWO HAND-HELD ELECTRONIC ORGANIZERS: A SIDE-BY-SIDE COMPARISON

Model	Psion Organiser II Model LZ	Sharp Wizard Model OZ-7000
besiders rigores; his	Psion, Inc. 320 Sylvan Lake Rd. Watertown, CT 06779 (203) 274-7521	Sharp Electronics Corp. Sharp Plaza Mahwah, NJ 07430 (201) 529-8200
Rating	***	***
Display (columns x lines)	20 x 4	16 x 8 or 12 x 4
Suggested Retail Price	\$299	\$299
Calendar Local Time Memo Schedule Stopwatch Telephone Book Timer	Yes	Yes Yes Yes Yes Yes Yes No Yes No Yes
	Computer link; printer; AC-adapter; programming language developer; bar-code reader; formatter; pocket spreadsheet; spelling checker; finance pack; math pack; formulator; EPROM 8, 16, 32, 64, and 128K data packs; 32K RAM packs	Computer link; printer; time-expense manager; dictionary; thesaurus; 8-language translator; 32 and 64K RAM cards
Dimensions (inches)	5.6 by 3.1 by 1.1	7.22 by 6.41 by 0.53 (open) 3.69 by 6.41 by 0.84 (closed)
Warranty	One year	One Year

# HARDWARE REVIEWS

done either sequentially or by keyword.

Other features. The Psion has its own Organiser Programming Language (OPL), which lets users write programs to perform functions unavailable on the Organiser II (calculating price quotes for salesmen, for example). Some prior programming knowledge is needed if you plan to use OPL.

### **OPTIONS**

Both Psion and Sharp offer extensive sets of optional software and equipment for their products—from additional memory and program packs to communications links and printers. (See accompanying chart.)

I tried the computer interfaces available for the products. The Comms Link for the Psion and the Organizer Link for the Sharp let you connect your organizer to a personal computer and exchange data. I had no problems using the interfaces.

## RECOMMENDATIONS

Although I liked both the Psion Organiser II and the Sharp Wizard, I didn't like either of their keyboards. The keys are small and

their layout awkward. After 12 years of using typewriters and computers, I've grown accustomed to the QWERTY layout—as have most people.

If you're looking for advanced calculator functions or programming capabilities, check out the Psion Organiser II Model LZ. If your priorities lean more toward an appointment book and telephone directory, the Sharp Wizard Model OZ-7000 might be a better choice. No matter which product you are considering, take a look at both before deciding.

# Two Affordable Laptops and a Reliable 2400-bps Modem

# **About Our Reviews and Ratings**

Each month, HOME-OFFICE COMPUTING'S Hardware Reviews take an in-depth look at new and worthwhile computers, peripherals, fax machines, copiers, phones, and other hardware.

Our reviewers set up the equipment in their own home offices. After heavy use and extensive testing, they rank each item on the basis of suitability for the home office and on overall value, taking into account performance, features, ease of setup, ease of learning and use, documentation, size, expandability/versatility, support, availability, warranty, and value for the money.

Then, the HOME-OFFICE COMPUTING

Hardware Testing Lab conducts its own battery of tests (a printer speed test, for example) and verifies manufacturers' specifications. Finally, our technical editors weigh the reviewers' rankings, the lab test results, and their own experience to determine an overall rating on a scale of zero to four stars:

O Poor ★★★ Very Good ★ Average ★★★ Excellent ★★ Good

### **Note on Hardware Requirements:**

Any product listed as requiring an IBM PC/XT/AT or compatible should also work with an IBM PS/2 Model 25, Model 30, or Model 30 286.

# 286-Based Laptop for a

Select Few

CIRCLE READER SERVICE 103

# **Bondwell B300**

Bondwell Industrial Co., Inc., 47485 Seabridge Dr., Fremont, CA 94538; (415) 490-4300

RATING: ★ ★

SUGGESTED RETAIL PRICE: \$2,995

MICROPROCESSOR: Intel 80286 (10 MHz); socket for 80287 (math coprocessor)

MEMORY: 1MB, expandable to 1.5MB on the motherboard

DISPLAY: 10.5-inch backlit supertwist LCD

DISK DRIVES: 3.5-inch 1.44MB floppy-disk drive and 20MB hard-disk drive with access speed of 68 ms

PORTS: Parallel, serial, video, and external floppy-disk drive OTHER HARDWARE INCLUDED: Internal 1200bps Hayes-compatible modem

SOFTWARE INCLUDED: MS-DOS 3.3, GW-BA-SIC version 3.22

DIMENSIONS: 12 by 13.6 by 3.5 inches

WEIGHT: 15 pounds (including built-in battery)

WARRANTY: One year

Shortly before taking a recent trip, I received the Bondwell B300 for review. I was looking forward to bringing this laptop computer along for the ride; but after looking it over, I decided to leave it home. The Bondwell lacks a handle, making it awkward to manage, and its LCD is an unpleasant blue on green.

Bondwell was an early player in the laptop market and has since been overshadowed by giants like Zenith, NEC, and Toshiba. And although the Bondwell B300 runs at just 10 MHz (most 286-based laptops on the market run at 12 MHz), it does include some of the necessities that those big companies charge extra for: a 20MB hard-

disk drive and a 1200-bps Hayes-compatible modem, for instance. Big-name laptops that are similarly equipped (but have a slightly faster hard-disk access speed) cost more than \$4,000.

The B300 has a 95-key keyboard that includes 10 function keys and a separate numeric keypad, all located at the top. It's comfortable and responsive and allows a more buoyant finger action than most desk-top-computer keyboards do.

The screen, however, is the weak link. It is duller than those available on recent Zenith and Toshiba 286-based laptops, but it may be acceptable to money-conscious users with text-based applications. A convenient switch on the right of the machine controls the backlighting—a function normally performed through keyboard commands

A hard-disk-drive power switch turns the



#### HARDWARE REVIEWS

drive off to decrease battery drain. Any command that requires disk use (Save, for example) automatically switches the hard disk back on. The B300 has an auto-park feature that secures the hard-disk drive to minimize the chances of destroying data when transporting the laptop.

The B300 is not the one-size-fits-all machine that can perform adequately in both a portable and desktop environment, but it is a respectable laptop for the price.

-CHARLES BERMANT

## Lightweight, Dependable Laptop

CIRCLE READER SERVICE 104

#### Toshiba T1200 HB

Toshiba America Inc., 9740 Irvine Blvd., Irvine, CA 92718; (714) 583-3000

RATING: ★ ★ ★

SUGGESTED RETAIL PRICE: \$2,999

MICROPROCESSOR: Intel 80C86 (switchable

4.77/9.54 MHz) with one wait state

MEMORY: 1MB

DISK DRIVES: 3.5-inch 720K floppy-disk drive and 20MB hard-disk drive with access speed of 78 ms

DISPLAY: Backlit LCD (CGA mode; 640 by 200 maximum resolution)

PORTS: One parallel, one serial, one floppy-disk drive

FREE EXPANSION SLOTS: None

SOFTWARE INCLUDED: MS-DOS 3.3

OPTIONS: 2400-bit-per-second (bps) internal modem (\$399); 2400-bps external modem (\$349); additional battery packs (\$79 each); external numeric keypad (\$99); 5.25-inch external floppy-disk drive (\$499); carrying case (\$59)

DIMENSIONS: 12.2 by 12 by 2.6 inches

WEIGHT: 10.9 pounds (12.1 pounds with battery)

WARRANTY: One year

Toshiba's T1200 HB is an 11-pound, 80C86-based laptop with a 20MB hard-disk drive and a backlit LCD display. While some users will opt for the more powerful Zenith SupersPort 286 Model 20 or Toshiba's flashier T1600 (both \$4,999 80286-based laptops), the T1200 is still a good choice for users who don't need the power of a 286 computer.

The T1200 HB comes standard with 1MB of RAM and a crisp blue-on-white screen. Parallel, serial, and floppy-disk-drive ports are provided, and so is an expansion slot for an optional 2400-bps internal modem (\$399). The T1200 HB is lighter than many comparable laptops on the market (the Epson Equity LT, for example).

Power is supplied by a removable onepound battery pack. Users can take along extra battery packs (\$79 each) when traveling with the T1200 HB (since each battery pack lasts two to three hours). The computer has a low-battery indicator light. A loud beep sounds if you close the unit with the power still on.

The resilience of the keyboard is pleasing, but its 82-key format and narrow width make the keys a little too close for comfort. The



keyboard has an integrated (embedded) numeric keypad, so if entering numbers is part of your routine, consider purchasing the optional external keypad (\$99).

The backlit LCD screen is clear and crisp. One oddity: The brightness switch is on the front of the screen, but the contrast knob is on the left side of the CPU.

The T1200 HB may seem a bit overpriced, but Toshiba makes reliable, high-quality products. Besides offering a one-year warranty, Toshiba has an "exceptional care" program: If your laptop breaks down, the company will lend you another one until yours is fixed. Combine this repair service with the discounted street price (about \$2,000), and the T1200 becomes an affordable, reliable, and useful traveling companion for businesspeople.

-CHARLES BERMANT

## 2400-bps External Modem

CIRCLE READER SERVICE 105

#### Racal-Vadic 2400LC Modem

Racal-Vadic, 1525 McCarthy Blvd., Milpitas, CA 95035; (408) 432-8008

RATING: ★ ★ ★

SUGGESTED RETAIL PRICE: \$395

HARDWARE REQUIREMENTS: Any computer with serial port and cable

FEATURES: Speaker volume control, automatic speed detection, Microcom Networking Protocol, Hayes AT-compatible autodialer

SOFTWARE INCLUDED: None

DIMENSIONS: 6 by 10.4 by 1.5 inches

WARRANTY: One year

The Racal-Vadic 2400LC is a compact, stylish modem that operates at 300, 1200, and 2400 bps. At \$395, it is competitively priced among the other entries in the current field of 2400-bps external modems. It doesn't come with communication software though; so unless you already have software, it's an added expense.

Like most modems, the 2400LC is Hayes compatible—it uses the Hayes command set (modem commands developed by Hayes Microcomputer Products). Racal-Vadic has enhanced this industry-standard command set by adding several commands of its own (called ATPlus), which let you display stored phone numbers and redial, for example.

Like many external modems, the 2400LC has an automatic adaptive equalization feature that minimizes errors caused by noisy phone lines. You can also activate the Microcom Networking Protocol (MNP) error control that is incorporated into the 2400LC. This sophisticated method of guarding against scrambled data results in reliable high-speed data transmission to a similarly equipped modem.

Setting up the modem requires nothing more than connecting an RS-232C cable (not included) to your computer's serial port, plugging in the modem's power supply, and connecting the standard modular telephone cord. Eight status lights on the front panel



keep you abreast of all modem activity. The back panel contains the power switch, a speaker volume control, and the telephone line, telephone set, and serial connectors.

The Racal-Vadic 2400LC is a well-made product with excellent error-handling capabilities. A limited warranty covers the unit for 12 months from the date of purchase, with service provided by the company. A technical-support phone number and a customer-service line are available, but neither is toll free.

—HENRY F. BEECHHOLD

For more information on 2400-bps modems, see the Hardware Miniguide in the June 1989 issue.

# From Making Decisions to Making Phone Calls

#### Plus: An Academic Word Processor, Integration for the Apple IIGS, Simplified Design, And More

Our reviews of application software use shorthand to describe several of the details associated with any package. This is particularly true under "System Requirements"where the minimum system configuration is noted—so we have provided the following table of computers for you to refer to as needed. Hardware, software, and memory are required unless noted as "recommended" or "optional." When more than one computer is listed under "System Requirements," the machine marked with an asterisk (\*) is the type on which the software was reviewed. Requirements are not listed where obvious (for instance, printers with word processors or modems with communications programs). Operating system requirements, such as MS-DOS or the Macintosh System file, are listed only when they're not the standard, minimum requirement (DOS 2.0 for IBM PC or compatibles, System 3.2 for the Macintosh, or ProDOS for the Apple II). For those computer systems that can use both 5.25- and 3.5-inch disks (IBM PC and PS/2 or the Apple II), we've listed only those disk sizes that are either supplied with the software or available at no extra cost from the publisher. Since most productivity software is not copy protected, we have indicatedwith the letters "CP"—only those programs that are copy protected. The version listed is the version reviewed; publishers may release subsequent versions at any time.

-	
Designation	Models
128K Apple	IIe/IIc/IIGS (in IIe/c mode) and compatibles
128Ke Apple	IIe (enhanced ROM)/IIc/IIGS(in IIe/c mode)
Apple IIGS	IIGS only
IBM PC, PS/2	PC/XT/AT, PS/2 and compatibles
128K Macintosh	128K/512K/512Ke/Plus/SE/II
512K Macintosh	512K/512Ke/Plus/SE/II
512Ke Macintosh	n 512Ke/Plus/SE/II
1MB Macintosh	Plus/SE/II

Ratings Key: ○ Poor; \* Average; \*\* Good; \*\*\* Very Good; \*\*\* Excellent

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Quoted Price Display Performance Battery Life (hours) CPU Benchmark Keyboard Layout Display Tupe Aspect Ratio Keyboard "Feel" Hard Disk Internal Modem Weight (pounds)	. WEIGHT 103 0 4 5 2 3 2 0 1	\$1,999+ Good- 3.7 0.91 XT- LCD-EL Wide V-Good N Opt	\$3,100- 2 0.0 1.30+ AT+ Plasma Normal 2 Y Opt 14.6	\$1,675+ Excell++ 4.5 0,80 Shared/AT LCD-EL Normal Good N Opt 13.5	\$2,590- Excell++ 3.1 0.80 Shared/AT LCD-EL Normal Good Y Incl 17.3
WGT TOTAL	40				
Zenith 181 Zenith 183 Zenith 183 Toshiba 3100	CORES: 0		5		1

Decision Pad looks like a spreadsheet, with competing alternatives listed across the top of the screen, and influential criteria running down the left-hand side.

## Tool to End Indecisiveness

#### **Decision Pad**

**VERSION REVIEWED: 1.0** 

SYSTEM REQUIREMENTS: 256K IBM PC, PS/2; two drives (hard-disk drive optional); DOS 2.0 or higher; 5.25- or 3.5-inch

PUBLISHER: Apian Software, P.O. Box 1224, Menlo Park, CA 94026; (415) 851-8496

PRICE: \$195

OVERALL PERFORMANCE: ★ ★ ★

DOCUMENTATION: ★ ★ ★

ERROR HANDLING: ★ ★ ★

EASE OF USE: ★ ★ ★

SUPPORT: ★ ★ ★

Do you regularly make complex decisions between competing alternatives? Would you like to do a reliable customer survey without employing a costly market-research firm? Decision Pad can help. It won't replace intuition or experience, but it can assist in organizing the information that tips the scales one way or the other. If you hire staff, consultants, or subcontractors, make product (or service) development decisions, or get customer feedback, Decision Pad is for you.

The program weighs alternatives (up to 150 at once) based on lists of criteria that you define and prioritize. Then *Decision* 

Pad assigns scores to your choices (similar to a judge scoring an Olympic competition). This decision-matrix methodology, as it's called in the management-consulting business, is a tried-and-true way of evaluating alternatives. It does, however, put the burden on you to describe your decision-making process accurately, and the rankings represent an interpretation of your self-reported priorities. If the results don't make sense to you, you'll need to rethink your criteria.

Let's say you are deciding whether or not to move your business out of your home. The alternatives, to move and not to move, would sit across the top of the page. Then you'd establish your list of criteria—for example, moving costs, additional monthly expenses, potential for profit, and commute time. These would run down the left-hand side of the page. Then you would weigh the criteria relative to each other. (Is it twice as important to you not to commute as it is to lose money because of a less desirable location?) Then you'd evaluate each alternative by entering the appropriate data, such as the amount of money you'd lose if you didn't move and the amount you'd gain if you did. The last step is to interpret the results, which you do by comparing the scores of each alternative.

Perhaps *Decision Pad's* strongest attribute is its flexibility in setting up your criteria. There are several quantitative formats to choose from: dollar and other absolute values, rankings (from 1 to 10, for example),

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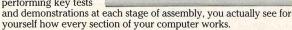
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as well as qualitative assessments. You can, for example, assess product quality along a spectrum of excellent, good, fair, and poor, or any terms you want. You can even create your own evaluation scales, although I found the built-in functions more than adequate for most tasks.

On-line help is plentiful and easily accessible with the F1 key. The screen design is relatively simple and Lotus 1-2-3-like, making use of function keys and a top-ofthe-screen menu bar with pull-down menus for most commands. You can append text notes of up to 500 characters to any alternative or criterion in your worksheet. You can also graph criteria and final scores for each alternative. A robust set of excellently formatted report options lets you look at your data in various formats, from bar charts to scatterplot graphs. One report option in Decision Pad lets you create questionnaires for distribution, and I found this capability alone almost worth the price of the software.

Unlike general-purpose tools, such as spreadsheets, word processors, and databases, *Decision Pad* does only a few things. Most people will not find it a musthave (although it is priced reasonably, handles errors well, and comes with superb documentation), but many might find it a nice-to-have. Like an odd drill bit or special carving knife, you may only use it twice a year, but you'll be mighty glad you have it.

-ROBERT GEHORSAM

## CADD For the NonDraftsperson

#### **Generic CADD Level 2 Starter Kit**

VERSION REVIEWED: n/a

SYSTEM REQUIREMENTS: 384K IBM PC, PS/2 (640K recommended); one drive (two drives or hard-disk drive recommended); CGA, EGA, VGA, Hercules; mouse and math coprocessor recommended; DOS 2.1 or higher; 5.25- or 3.5-inch PUBLISHER: Generic Software Inc., 11911 North Creek Pkwy. S., Bothell, WA 98011; (206) 487-2233

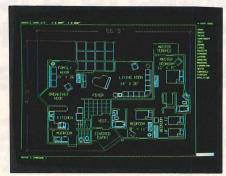
PRICE: \$200

OVERALL PERFORMANCE: ★ ★

DOCUMENTATION: ★ ★ ★
ERROR HANDLING: ★ ★

EASE OF USE: ★ ★
SUPPORT: ★ ★ ★

If you're an architect or engineer, you've your paper size. It will probably had a full-blown, three-dimensional computer-aided drafting and design denoting how big it is).



Generic CADD Level 2 Starter Kit integrates auto-dimensioning, a library of canned components, and a beginner's orientation.

(CADD) system for a long time now. But if you're in a field where technical drawing is secondary (such as landscaping, desktop publishing, or technical illustration), or if you just want to design your dream house, then the *Generic CADD Level 2 Starter Kit* may have the functions, price, and beginner's orientation you need.

Generic CADD really is a (nearly) full-featured CADD program with a generic approach. It does all the basics, and its command structure is reminiscent of AutoCAD, the industry leader.

Level 2 means it's the intermediate product—there's also 1 and 3. Starter Kit means that it comes with more than 120 canned architectural components, including top or side views of trees, toilets, electrical assemblies, trash compactors, and so forth—to add to your drawings and guarantee them a professional look. Draw the walls, fill in the components, and, voilà! You've got a house. Without the canned components, Level 2 costs \$150. As a two-dimensional drawing package, CADD 2 seems to lack little for serious-but-occasional users who need CADD only for special projects, but, at such moments, need the real thing.

Aside from the (very useful) component library, *CADD* 2 incorporates levels that allow you to stack components of the drawing, as if you were using layers of tracing paper. This feature would be helpful to illustrate, say, plumbing on one level, appliances on another, labels on a third, and dimensions on a fourth. You can work on one layer at a time, so your drawings won't be cluttered. If two objects in a drawing overlap, the program will display them as abutting so that both can be seen clearly.

The package also includes automatic dimensioning. You decide what spacing the drawing's grid will represent—for example, whether the points represent quarter-inch or two-foot intervals. The software then simply knows how big everything is. When it's time to print, it scales the drawing to fit your paper size. It will also add dimension labels (lines on the outside of an object denoting how big it is).

Automatic fillets and chamfers (curved and beveled corners) spare you from drawing tiny details at every counter edge or every corner where you want moulding.

Professional features are missing. CADD 2 lacks fill patterns (used for shading objects), bezier curves (for tracing irregular outlines with curves), and a macro language. If you really need the last two, look to Level 3. For fill patterns, the manual gives hints on how to simulate them by replicating small component patterns.

You don't *need* a mouse, although using *CADD* 2 without one (by relying on the cursor keys) would be tedious.

The commands are easy to find in the manual, but it's a relief to get far enough up the learning curve to put the manual away. When I got stuck, I found Generic's customer service technicians to be knowledgeable and patient. Unfortunately, there is no toll-free number.

As for printing, it gives you enough time to get coffee but not enough to go shopping. It took almost five minutes to output the sample house plan shipped with the *Starter Kit* on a Quadram QuadLaser (emulating a Hewlett-Packard LaserJet)—but speed and CADD never seem to go together.

Other than that, the only particular problem with *CADD 2* is that once you do your drawing, you can print it, and that's it. There are no provisions for converting to or from other CADD, graphics, or desktoppublishing formats. To do so, you have to buy add-ons from Generic, which cost from \$50 to \$250. *DeskConvert*, a utility that offers .PCX (*Publisher's Paintbrush*), TIF, GEM, Encapsulated PostScript, and Microsoft *Paint* format compatibility, is included with *Level 2*.

Despite its professional features, Generic CADD is easy to approach. You don't need to be a draftsperson to use it, thanks to a chatty tutorial that comes with the program. And if you had never heard of elevation views or chamfers before, fine. The tutorial will explain those things, too.

—LAMONT WOOD

## A Word Processor That Does It All

#### **Nota Bene**

**VERSION REVIEWED: 3.0** 

SYSTEM REQUIREMENTS: 512K IBM PC, PS/2; two drives (hard-disk drive strongly recommended); DOS 2.0 or higher; 3.5- or 5.25-inch

PUBLISHER: Dragonfly Software, 285 W. Broad-

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#### SOFTWARE REVIEWS

way, Ste. 600, New York, NY 10013 (212) 334-0445

PRICE: \$495

OVERALL PERFORMANCE: \* \* \*

DOCUMENTATION: ★ ★ ★

ERROR HANDLING: ★ ★ ★

EASE OF USE: ★ ★

SUPPORT: ★ ★ ★

If your game is preparing technical or academic documents, then *Nota Bene* should be first on your list of word processors to explore. If you're looking for an everyday, easy-does-it text handler, look elsewhere. You can do the simple stuff with *Nota Bene*, and it won't take you long to figure out how; but for simple word processing, you won't want to spend \$495 and wander through the *Nota Bene* maze. (N.B. The term *nota bene*, abbreviated N.B. and pronounced NOtuh BENee, means note well. It is generally used in text in notes that explain or underline a point.)

Be warned: Though you may have word-processing experience, you'll find the transition to *Nota Bene* trying—unless your experience has been with *XyWrite*, a word processor that is widely used in the publishing industry. In fact, *Nota Bene* is really a customized version of *XyWrite*.

As with XyWrite, you enter commands on

The Book of the Prophet Isaiah, 58: 6-8

The Book of the Book of the Prophet Isaiah, 58: 6-8

The Book of the Prophet I

From foreign character sets to footnoting, Nota Bene is an industrial-strength word processor that will help you get the job done—with finesse.

a command line at the top of the screen, but at first you'll rely on the Lotus 1-2-3-style menu system. You always access the menuing system with F1, then point and shoot your way to where to want to go. Eventually, you'll take advantage of the fast track: function keys, special key combinations, and command-line entries.

Nota Bene allows complete control over your output. To name a few: multilingual characters, columns and tables, footnotes and endnotes, bibliographies, outlining, tables of contents, indices, lists, sorting, mathematical operations, even blue pencil-

ing and redlining.

Printing features include total control over queuing, page production, typography, label and envelope printing, direct printing (computer as typewriter), and soft-font downloading. Writing aids include mail merge, customized style sheets, automatic stored-phrase insertion, customized keyboards, hyphenation dictionary, spelling checker, and thesaurus.

The paper dedicated-key guide will help you adjust to the new editing patterns, the truly encyclopedic on-line help system, which seems almost without end, is even better. In fact, most help screens are crammed with information—almost, in some cases, too much.

Then there's the manual, whale-size documentation that seems to go on and on. You'll manage to get by without it except when you want to do something really fancy, such as develop a document style different from those provided (American Psychological Association, Modern Language Association, and others). The manual is actually a library of five publications: Installation Guide, Tutorial, Quick Reference Guide, Customizing and Programming Guide, and the big daddy Reference Manual. Everything you'll need to know can be found somewhere in this plethora of text.

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1-800-445-4780, Ext. 8100.

But it's only after you have a handle on the program that the glorious detail of the big book will truly make sense.

Customer support is available via a nontoll-free number. When I called, the tech person was not available. I was asked to leave my number, and within a few minutes—yes it's true—someone called me back. Starting 90 days after you've registered the software, you may be billed if, as the warranty notice says, "you frequently request support." (The company says they've never followed through on this, however.) "Frequently" is undefined. I assume it means they don't want you to make a nuisance of yourself. You will have to pay for support for Nota Bene's Extended Programming Language.

My experience with the program teaches me that it's best not to give much thought to its Byzantine design, which can bemuse, even befuddle. If you just keyboard along, turning to the help system and manual only when some special need arises, you'll find *Nota Bene* a congenial companion.

-HENRY F. BEECHHOLD

## Total Phone Management

#### **Hot Line Two**

**VERSION REVIEWED: 2.1** 

SYSTEM REQUIREMENTS: 256K IBM PC, PS/2; two drives (hard-disk drive recommended); modem; DOS 2.0 or higher; 5.25- or 3.5-inch

PUBLISHER: General Information, Inc., 401 Parkplace, Kirkland, WA 98033, (206) 828-4777 PRICE: \$99

OVERALL PERFORMANCE: ★ ★

DOCUMENTATION: \* \* \*

 $\frac{ERROR\ HANDLING:\ \bigstar\ \bigstar\ \bigstar}{EASE\ OF\ USE:\ \bigstar\ \bigstar}$ 

SUPPORT: \* \* \*

It's funny how biases have a way of catching up with you. Several years ago, in an article I wrote for another computer magazine, I emphatically stated that I could not understand why anyone would even contemplate using his or her computer as a glorified phone dialer. I don't remember the exact words, but I believe I used the metaphor hunting quail with a bazooka, or something equally banal.

Well, it's swallow-my-soliloquy time. Hot Line Two, a \$99 phone-management program, makes it practical to use a personal computer to manage your telephone activities. But, as you'll see later, there's one major caveat.

Hot Line Two turns your computer into a fully automated switchboard. There is no



Hot Line Two works with your modem to turn your computer into a fully automated switchboard. It brings your business contacts as close as the touch of a button.

limit to the number of directories you can create, although only six can be viewed onscreen at one time. To add other directories, you must remove one of the six and replace it with the desired directory.

You specify the information you want each directory to contain. In a simple dialing directory, for instance, you could decide to record only names and telephone numbers. More comprehensive directories might also include addresses, contact names, special dialing instructions, and a comment field to record information about a given listing. Comments attached to a directory listing can be up to 254 characters long. Other fields are available to let you specify extension numbers, department titles, dial-

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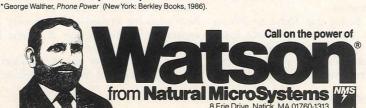
GEORGE R. WALTHER

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We'll send you a free

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#### SOFTWARE REVIEWS

ing methods, time zones, and the like. Sixteen different information or instruction fields are available, and you select which ones you want included in your listings for a given directory.

Dialing is a cinch. Just select the appropriate directory, highlight the entry you wish to call, and press Enter. Hot Line Two (aided by your modem) takes care of the rest. But if dialing the phone were all Hot Line Two accomplished, I doubt I'd recommend it; visions of obliterated quail still dance through my head at that suggestion. But several other features of Hot Line Two more than justify its purchase.

First off, the program comes with a sample file, called the National Directory, that contains the names, addresses, and telephone numbers of over 10,000 major American corporations, government agencies, organizations, and more. This file alone is worth the program's \$99 list price. There's also a special function that lets you quickly look up the area code and time for more than 3,000 cities around the world. Once you locate an area code in this manner—or a country code for a foreign city—pressing Enter automatically dials directory assistance for that city. Finally, Hot Line Two includes a print utility that lets you generate printouts or mailing labels from any of its directories.

One thing that really sets *Hot Line Two* apart from other phone-management programs I've reviewed is how little memory it uses when run as a terminate-and-stay-resident (TSR) program. With expanded memory (more than 640K of RAM), the program consumes only 3K, leaving plenty of memory available for other applications. *Hot Line Two*, in TSR mode, is also compatible with my other software. It worked well with Lotus 1-2-3, *WordStar*, *Symphony*, *Framework*, *Desgview*, and *Q&A*.

On a system with 640K or less, however, Hot Line Two requires anywhere from 72K to 85K to run in TSR mode. This is the caveat I mentioned before, and it revives one of the original objections I had to such programs: They simply tie up too much memory to justify constant use—unless the phone is a major part of your work. You can always run Hot Line Two as a stand-alone application, but if you do, you sacrifice immediate access to your dialing directories—Hot Line Two's greatest selling point.

Another problem with *Hot Line* is that there's no way to attach notes about a given call to a phone-log entry. With a note feature, I would have deemed this program almost indispensable.

If you do decide that *Hot Line Two* is right for you, you'll have no trouble learning to use it. A single, spiral-bound booklet adequately describes all the program's main features in clear, concise language. Illustra-

tions and screen shots are included, when appropriate, to enhance the manual's clarity. A comprehensive help feature provides enough on-line information so that you'll rarely need to refer back to the manual once you've mastered the basics.

Support warrants an excellent rating. General Information offers a 30-day guarantee. If, for any reason, you're not satisfied, simply mail Hot Line Two back to the publisher along with proof of purchase. The company will refund your money, no questions asked. The program's technical support is also excellent and available to all registered owners. You pay for the call, but I consider that acceptable for an inexpensive package like Hot Line Two. I called the support number twice. I never received a busy signal, and the staff answered my questions about maintaining multiple phone logs and running Hot Line under Desqview both knowledgeably and courteously.

I guess I'll have to eat crow (quail?) on this one and confess that *Hot Line Two* has changed my opinion of phone-management software. Even on a no-frills, 640K machine, *Hot Line Two*—though not a must have—is potentially quite useful. Gee, maybe you can teach an old reviewer new tricks.

—JACK NIMERSHEIM

## AppleWorks Gets a Makeover

#### **AppleWorks GS**

VERSION REVIEWED: 1.0

SYSTEM REQUIREMENTS: 1.25MB Apple IIGS; one 800K disk drive (two drives recommended); RGB color monitor recommended.

PUBLISHER: Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052; (408) 987-7000

PRICE: \$299

OVERALL PERFORMANCE: ★ ★

DOCUMENTATION: ★

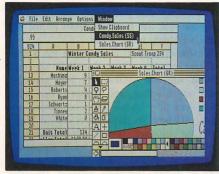
ERROR HANDLING: ★ ★

EASE OF USE: \* \*

SUPPORT: ★ ★

AppleWorks GS is overwhelming—a monster of an integrated product that, on three disks, contains a word processor, graphics module, database, spreadsheet, page layout, and telecommunications module. The software is so extensive that it should probably contain a disclaimer such as "Warning: New users are advised to absorb only one application in this package at a time lest sensory overload set in."

The learning curve for the product is steep. I had the most trouble understanding



The long-awaited AppleWorks GS has arrived, bringing a plethora of new features, as well as a few new problems.

how to move between applications and how to create database files. And the documentation doesn't really help. There is no tutorial, neither on-line nor in print. Why not? Even the original *AppleWorks* had one, and I found it essential to get started. Without this grounding, I floundered around at first.

A second warning should be offered up front: If you do not have a maximal system configuration (ideally a hard-disk drive and a laser printer), the scope and power of this software may elude you. In my case, with just one 3.5-inch disk drive and an Image-Writer printer, the sluggish process of loading the software and printing files was very frustrating. I actually clocked the loading time at three minutes on several occasionsand it took almost five minutes to print one page of text. So, while this is an astounding package in its scope and content, be forewarned that using the program with a less than maximally configured IIGS system may be slow and frustrating. There is a draft mode, which prints text files instead of graphics files, but then why bother to use this product? You might as well use the original, trusty AppleWorks.

In spite of these disappointments, I found the modules themselves pretty exciting. The software's Window feature lets me store up to 14 files from various applications and move freely among them. This feature alone is a real plus to users who frequently move between word processing and telecommunications, for example. It also makes creating page layouts fantastically easy.

The word processor is smart, competent, and swift (until it's time to print). Its basic features are almost commonplace in software of this type: numerous type fonts and styles and standard editing capabilities. It accepts text files from *AppleWorks* and *MultiScribe*, as well as any ASCII file. The 80,000-word spelling checker flies speedily through a document. My favorite feature is the 470,000-word thesaurus, which appears on-screen instantly.

The graphics module includes the standard features, as well as the ability to import files generated by certain other paint programs (*DeluxePaint II*, *PaintWorks Plus*,

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DOME® Publishing, Warwick, RI

#### SOFTWARE REVIEWS

PaintWorks Gold and all Apple IIGS standard format (APF, PNT, PICT) graphics documents. In addition, the graphics module features a number of fancy editing techniques, such as Bring to Front, which layers pictures one on top of another.

The spreadsheet automatically generates business graphics, such as pie charts and bar graphs, which can be slid into a page-layout file and merged with the text of a word-processor file. Another nice feature of the spreadsheet is that it can print sideways.

I liked the Page Layout module. It was easy to learn and fun to use. While I'm sure that there are other more fully featured layout programs available for other computer systems, this one would suit most of my needs just fine—though it, too, prints very slowly.

The telecommunications module is, like all the others, competent and feature rich. I liked that I could store automatically dialed numbers within each file I created. And, as

I mentioned before, being able to transmit data without having to stop to load a communications program is a great plus.

The database is immensely powerful. I was particularly impressed with the way database files could contain graphics, dynamic mathematical calculations, data imported from the word processor, or the usual text files. I also liked being able to switch between the form mode and list formats with the press of a button.

At one bleak point when I was trying to design database templates and felt utterly abandoned by the documentation, I called Claris's customer-support number and wove my way through its voice-mail system until I reached a human being (in retrospect, perhaps it was a particularly intelligent robot). She made some basic inquiries about my system configuration and then suggested I invest in a new disk drive. Though she was probably right, I was astounded by her cavalier suggestion that I drop another few hun-

dred dollars just so I could run her company's product. She then asked me if I knew how to use a Macintosh, as *AppleWorks GS*, she said, works just like the Macintosh System software. That was about the extent of her input.

I hung up, sighed, and continued my head-scratching perusal of the documentation. As my paranoia began to mount, I wondered if, in fact, the entire package, tantalizing as it is, competent as it is, comprehensive as it certainly is, isn't some sort of practical joke. After all, to own a system that is fully capable of running this software, you'd have to lay out quite a bundle. And even once you've done that, your system would still run much more slowly than a Macintosh. Come to think of it, for the kind of money it would cost to run this software under optimal conditions, you could get yourself—I hate to say it, being a longtime Apple user—quite a powerful MS-DOS system. -DEBORAH KOVACS

TITLE/PUBLISHER PRICE/VERSION	SUMMARY	SYSTEM REQUIREMENTS			NGS EH	EU	s
Celebrity Write Good Software Corp. 13601 Preston Rd., #500W Dallas, TX 75240 (214) 239-6085 \$130 v2.0	Good menu- and command-driven word processor with built-in desktop utilities, such as a calendar, calculator, and file manager. Extras (such as the spelling checker and thesaurus) are impressive, but the utilities—though well designed—are limited because you can use them only from within the word processor. If word processing is all you do, that may not matter but otherwise, <i>Celebrity</i> may not be the best idea.  —Brooks Hunt	256K IBM PC, PS/2 (384K with DOS 2.0 or higher). Two drives (hard-disk drive optional). 5.25- or 3.5-inch	* *	* *	* *	* *	* *
InfoGuard Advanced Gravis Computer Technology 7033 Antrim Ave. Burnaby, BC, Canada V5J 4M5 (604) 434-7274 \$100 v1.3	Password-protect and scramble your files to prevent unwanted access. <i>InfoGuard</i> lets you encode a 300K document on a Mac SE in about 20 seconds. Includes adequate on-line help and virus protection. Biggest flaw is a quirk that lets you exit without reencrypting, leaving your files vulnerable.  —Carol S. Holzberg	512Ke Macintosh. One drive (hard-disk drive recommended). System 3.2 or higher	* *	* * *	*	* * *	* *
Maillist Hypergrowth Int'l. 180 Steeles Ave. W. Thornhill, Ontario, Canada L4J 2L1 (416) 764-8088 \$99 v2.6	Intuitive, no-frills package that lives up to its name. Works with your word processor and database to add efficiency to the mail-merge process. Although Maillist doesn't make promises it can't keep, its lack of true phone management (it dials, but that's it) makes it somewhat limited for home-office use.  —Charles Bermant	384K IBM PC, PS/2. Hard-disk drive. DOS 2.1 or higher. 5.25- or 3.5-inch	*	* * * *	* * *	* * *	* * *
MaxPage Applied Systems & Technologies, Inc., 227M Hallenback Rd. Cleveland, NY 13042 (315) 675-8584 \$89 v1.0	Inexpensive page-layout software that's easy to learn and use. Includes 40 fill patterns, multiple fonts and font sizes, and well-written (albeit brief) documentation. However, annoying bugs and numerous limitations (single-page files, lack of drawing tools, and manual column formatting) preclude the program's usefulness for anything but the most minimal tasks.  —Carol S. Holzberg	512K Macintosh. One drive. System 4.2 or higher	* *	* *	*	* *	*
Tony Stewart's Home Office Tony Stewart Software 309 W. 109th St. #2E New York, NY 10025 (212) 222-4332 (800) 541-0756 \$149 v1.13	Financially oriented package that could be useful for those who have trouble billing time or tracking expenses. Includes a simple user interface and adequate documentation. But if your needs are different from Tony Stewart's invoice-based system, look elsewhere for inspiration.  —Charles Bermant	512K IBM PC, PS/2. Two drives. 5.25- or 3.5-inch	*	* *	* * *	* * * *	* *



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ship position is unequalled in the industry. Archive provides you with the lowest cost, and most reliable, advanced products on the market today.

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#### BUSINESS

- 1. Lotus 1-2-3 Lotus Development Corp. 2. WordPerfect v4.2 and 5.0
- WordPerfect Corp. Windows/286
- Microsoft Corp.
- 4. PFS: First Publisher Software Publishing Corp.
- Works v1.05 Microsoft Corp.
- Word v5.0 Microsoft Corp.
- 7. RightWriter v3.1 RightSoft, Inc.
- Excel v2.1 Microsoft Corp.
- 9. Complete II Business Accounting System Peachtree Software
- SpinRite Gibson Research Corp.

#### HOME/SMALL BUSINESS

- 1. The Print Shop w/Graphics Library Broderbund Software
- 2. Calendar Creator Plus Power Up! Software
- 3. Managing Your Money v5.0 MECA
- Résumé Kit Spinnaker Software Will Maker v3.0
- Nolo Press 6. Print Magic
- Epyx, Inc. PC-Globe +
- Comwell Systems, Inc. PrintMaster Bundle Plus Unison World
- Personal Lawyer Bloc Development
- 10. Deluxe Paint II Electronic Arts

#### **EDUCATION**

- 1. Mavis Beacon Teaches Typing
  The Software ToolWorks/EA
- Learning DOS v2.0 Microsoft Corp.
- Where in the USA . . . ? Broderbund Software
- Math Blaster Plus Davidson & Associates
- Where in the World . . . ? Broderbund Software
- 6. Reader Rabbit The Learning Company
  Children's Writing &
- **Publishing Center** The Learning Company
- 8. Think Quick! The Learning Company
- 9 Alge-Blaster Davidson & Associates
- 2nd Math Stone & Associates

#### **ENTERTAINMENT**

- 1. Flight Simulator v3.0 Microsoft Corp.
- 2. 688 Attack Sub Electronic Arts
- 3. Space Quest III Sierra On-Line
- 4. The Duel: Test Drive II Accolade
- 5. Red Storm Rising MicroProse Software
- 6. Earl Weaver Baseball v1.5 Electronic Arts
- 7. Chessmaster 2100 Electronic Arts
- 8. Leisure Suit Larry II Sierra On-Line
- 9. King's Quest IV: Perils of Rosella Sierra On-Line
- 10. Leisure Suit Larry Sierra On-Line

#### BUSINESS

- 1. My Mail List MY Software
- 2. Word v4.0 Microsoft Corp.
- 3. SuperCard Silicon Beach Software
- Excel v2.2 Microsoft Corp.
- 5. Simply Accounting Bedford Software/Computer
- 6. Works v2.0 Microsoft Corp.
- 7. PageMaker v3.0 Aldus Corp.
- WriteNow v2.0 T/Maker Company
- **SmartArt** Emerald City Software
- 10. Wingz Informix

#### HOME/SMALL BUSINESS

- 1. The Print Shop Broderbund Software
- Calendar Creator v1.0 Power Up! Software
- 3. Managing Your Money MECA
- World Class Fonts Double-Click Software
- Wet Paint Vol. 1 & 2 Bundle Double-Click Software
- Will Maker v3.0
- Family Matters Springboard Software
- Dinner at Eight Rubicon
- Poster Maker Plus Broderbund Software
- 10. Images with Impact! Business 1 3G Graphics

#### **EDUCATION**

- 1. Mavis Beacon Teaches **Typing** The Software Toolworks/EA
- 2. Manhole Mediagenic
- 3. Where in the World is Carmen Sandiego? Broderbund Software
- 4. Where in the USA is Carmen Sandiego?
- Broderbund Software 5. Number Maze
- Great Wave Software 6. Math Blaster!
- Davidson & Associates 7. Reader Rabbit
- The Learning Company
- 8. Type! Broderbund Software
- Typing Instructor Encore Individual Software, Inc.
- 10. KidsTime Great Wave Software

#### **ENTERTAINMENT**

- 1. Falcon v2.0 Spectrum HoloByte
- The Bard's Tale Electronic Arts
- 3. SimCity Broderbund Software
- Life & Death
- The Software Toolworks/EA 5. Flight Simulator v1.02
- Microsoft Corp.
- 6. Leisure Suit Larry Sierra On-Line
- Tetris
- Spectrum HoloByte Quarterstaff Mediagenic
- 9. Sargon IV Spinnaker Software
- 10. Hardball Accolade

#### BUSINESS

- 1. AppleWorks v2.1 Claris Corp.
- Graph-It! Timeworks, Inc.
- 3. Publish-It! v2.0 Timeworks, Inc.
- WordPerfect v1.1 WordPerfect Corp.
- 5. List & Mail Avery
- 6. AppleWorks GS Claris Corp.
- 7. WordPerfect v2.1 WordPerfect Corp.
- 8. Wordbench Addison-Wesley Publishing GeoPublish
- Berkley Software Notes 'n' Files DataPak Software

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- 1. The Print Shop w/Graphics Broderbund Software
- Bank Street Writer Plus Broderbund Software
- Print Magic Epyx, Inc.
- Print Shop Companion Broderbund Software
- Family Matters
- Springboard Software 6. The Print Shop Holiday Graphics
- Broderbund Software 7. The Print Shop Party Graphics
- Broderbund Software 8. Art & Film Director Epyx, Inc.

MECA

10. The Print Shop Sampler Graphics Broderbund Software

Managing Your Money v4.0

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- 1. Where in the World . . . ? Broderbund Software
- 2. Children's Writing & Publishing Center The Learning Company
- 3. Mavis Beacon Teaches Typing
- The Software Toolworks/EA 4. Math Blaster Plus Davidson & Associates
- 5. Where in the USA . . . ? Broderbund Software Think Ouick!
- The Learning Company The Oregon Trail

MECC

- 8. Reader Rabbit The Learning Company
- Alge-Blaster Davidson & Associates
- Magic Spells The Learning Company

#### **ENTERTAINMENT**

- 1. King's Quest Sierra On-line
- 2. Hardball Accolade 3. Arkanoid
- Taito Software 4. Dungeon Master
- FTL Games Crystal Quest Casady & Greene, Inc.
- 6. Hunt For Red October Datasoft/EA
- 7. Paperboy Mindscape, Inc.
- 8. TV Game Shows: Jeopardy Wheel of Fortune ShareData
- 9. Advanced Dungeons & Dragons Pool of Radiance Strategic Simulations
- 10. California Games Epyx, Inc.

## **Editors' Picks**

#### Our Choice of This Year's Best Education and Creativity Software for Children and Adults

he same impulses that spur audiences to cheer a winning team, stand up and applaud an actor, and throw roses at the feet of an opera singer have inspired the editors of HOME-OFFICE COMPUTING to celebrate their favorite programs for education and creativity. Making the choices was tough, but the following programs stand out as the best we've reviewed during the past year. We proudly present this year's Editors' Picks.

#### **EARLY LEARNING**

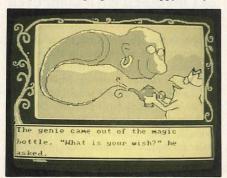
#### AmandaStories, Volumes 1 & 2

For every parent with young children and a Macintosh, reading through the HyperCard adventures of Inigo the Cat (Volume 1) or the Faithful Camel (Volume 2) is a perfect way to share time, technology, and tenderness. Ages 3 to adult can develop storytelling techniques and expand creative thinking as they follow different paths through each elegantly illustrated adventure.

Volume 1 was reviewed in February 1989; Volume 2 in April 1989. Available for 1MB Macintosh with HyperCard; \$25 each from The Voyager Co., 1351 Pacific Coast Highway, Santa Monica, CA 90401; (800) 446-2001, (800) 443-2001 in Califor--GWEN SOLOMON AND JUDITH ZORNBERG

#### Flodd The Bad Guy

Flodd is a pretty mean character in a story about a genie, a magic lamp, and a king who just wants people to be happy. As you



The Genie will grant you three wishes to help combat the evil doings of Flodd, the Bad Guy. and your 2- to 6-year-old child make choices affecting the outcome of the story, you will discover how much fun it can be to spend time playing, laughing, and reading together at the computer.

Reviewed in June 1989. Available for 64K Apple, 512K Apple IIGS, 128K IBM PC, PS/2; \$35 from Tom Snyder Productions, Inc., 90 Sherman St., Cambridge, MA 02140; (617) 876-4433.

#### **SCIENCE AND NATURE Audubon Wildlife Adventures: Grizzly Bears**

Children love bears, and Grizzly Bears gives both children and their parents a chance to learn more about the endangered grizzly and its habitat. In one of the most engrossing



This grizzly has just caught wind of some bear watchers nearby

simulations ever, follow Dr. Potts through grizzly country to collect bear facts and solve the Grizzly Bear Mystery. Then turn to the well-written reference material for additional information. Easy enough for a 9year-old, yet stimulating for adults as well.

Reviewed in July 1989. Available for 128Ke Apple, 512K Apple IIGS, 256K IBM PC. PS/2: \$50-\$60 from Advanced Ideas Inc., 2902 San Pablo Ave., Berkeley, CA 94702; (415) 526-9100. —TAN SUMMERS

#### **Return of the Dinosaurs**

Players roam through four locations (Main Street, a rural scene, the local museum, and Museum Park) to gather clues about a dinosaur that has wandered into the 20th century

from the Mesozoic era. In order to return the dinosaur to its rightful place and time, children must sort out the facts before time, food, and money run out. Return of the Dinosaurs is a fun-filled adventure that not only teaches children ages 10 and up interesting facts about 70 prehistoric reptiles but also encourages them to develop word-processing and database-management skills.

Reviewed in June 1989. Available for -JOEY LATIMER 128K Apple, 256K IBM PC, PS/2; \$40 from American Educational Computer, Inc., 7506 N. Broadway Extension, Suite 505, Oklahoma City, OK 73116; (405) 840--CAROL S. HOLZBERG

#### MATH

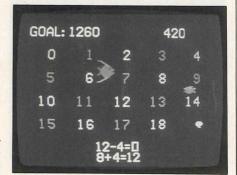
#### **NumberMaze**

Locked doors block the twisted path to the castle, but the real key to getting into the castle is mastering math. The maze is a great motivation, and the questions are as challenging as maneuvering the maze of passageways. An exciting way for 5- to 12year-olds to practice counting problems, word games, and arithmetic.

Reviewed in March 1989. Available for 512K Macintosh, 1MB Macintosh II: \$50 from Great Wave Software, 5353 Scotts Valley Dr., Scotts Valley, CA 95066; (408) 438-1990. -GWEN SOLOMON

#### **Jumping Math Flash**

The object of the game is to lead a small happy face through a maze of numbers, arriving at the correct answer to an addition, subtraction, multiplication, or division prob-



Jumping Math Flash is a gas, gas, gas.

lem before being eaten by a sea creature. For sound educational content disguised in a fast-action, arcade-style game, *Jumping Math Flash* is a gas, gas, gas.

Reviewed in October 1988. Available for 48K Apple; \$50 from Mindscape, Inc., 3444 Dundee Rd., Northbrook, IL 60062; (312) 480-7667. —JUDITH ZORNBERG

## PROBLEM SOLVING Solve It!

There's sunken treasure to be found in the Caribbean waters. But where? The only guide is an old ship's log that tells of mysterious islands with ancient temples, dense jungles, giant scorpions, and dangerous



Search through clues to track down hidden treasures in Solve It!

whirlpools. This is just one of the six mysteries awaiting children in *Solve It!*, a marvelous problem-solving, logic game for ages 8 and up.

Reviewed in November 1988. Available for 64K Apple; \$75 from Sunburst Communications, 39 Washington Ave., Pleasant-ville, NY 10570; (914) 747-3310.

-MIR'IAM FURST

#### READING

#### **Reading and Me**

Seals, clowns, magicians, and other animated characters give children positive reinforcement while teaching them new words



Colorful seals, clowns, and magicians introduce letters and words in Reading and Me.

in this pre-reading and early-reading skills program. Suitable for children ages 4 to 7, the activities are simple, well designed, and comprehensive. *Reading and Me* is solid, forgiving, orderly, and predictable. It is not flashy, but it handles its subject matter competently, and it treats its users with respect.

Reviewed in December 1988. Available for 128Ke Apple, 256K IBM PC, PS/2; \$40 from Davidson and Associates, Inc., 3135 Kashiwa St., Torrance, CA 90505; (213) 534-4070. —DEBORAH KOVACS

#### **GEOGRAPHY**

#### PC Globe +

Do you know where Sri Lanka is or what language they speak in Nigeria? Exploring these and other geography facts—about economics, population, and tourism, for example—for 177 countries, is easy and compelling for anyone 8 to adult. Exceptional graphics and a flexible format make this an ideal tool for business, education, or travel.

Reviewed in June 1989. Available for 384K IBM PC, PS/2; \$70 from Comwell Systems, Inc., 2100 S. Rural Rd. Suite #2, Tempe, AZ 85282; (602) 894-6866.

-STEVEN WILLIAMS

## Where in Europe Is Carmen Sandiego?

The third product in a long-running, best-selling series of educational games pits your child, the eager ACME detective, against Carmen Sandiego and her associates at the Villains International League of Evil. Catching these bad guys tests 9- to 15-year-olds' knowledge of geography and assorted cultural facts. It also requires deductive skills that are well worth developing—even if you don't plan on pursuing criminals for a living. European content, new crooks, a specially prepared atlas of Europe from Rand McNally, and an on-line database distinguish Where in Europe from its predecessors.

Reviewed in September 1988. Available for 512K Amiga, 128K Apple, C 64, 256K IBM PC, PS/2; \$45–\$55 from Broderbund Software, 17 Paul Dr., San Rafael, CA 94903; (415) 492-3200.

- ROBERT GEHORSAM

## **DESKTOP PUBLISHING**The Children's Writing and

**Publishing Center** 

Desktop publishing is not known for simplicity, but *CWPC* has just enough features to offer variety without being too complex. Children 8 to 14 can design their own documents; choose pictures, fonts, and type sizes; and experiment with different page

layouts. The result is their own mix of text and illustration for fantastic-looking book reports, research assignments, newsletters, stories, cover pages, and more.

Reviewed in April 1989. Available for 128K Apple, 384K IBM PC, PS/2; \$60-\$70 from The Learning Company, 6493 Kaiser Dr., Fremont, CA 94555; (415) 792-2101.

—CAROL S. HOLZBERG

#### **KidWriter Golden Edition**

Enhanced graphics and print capabilities stimulate 6- to 10-year-olds to write, illustrate, and print their own stories. Children can choose from more than 250 images of people, monsters, flowers, and animals; create dialogue or prose to place on the bottom third of the screen; and add musical accompaniment. The package encourages creativity, as well as practice with writing and editing. Once the pages of the story are printed, children can staple them into a book and color them.

Reviewed in April 1989. Available for 512K IBM PC, PS/2; \$50 from Spinnaker Software Corp., One Kendall Sq., Cambridge, MA 02139; (617) 494-1200.

-MARLENE BUMGARNER ELTGROTH

#### **PRODUCTIVITY**

#### PosterMaker Plus

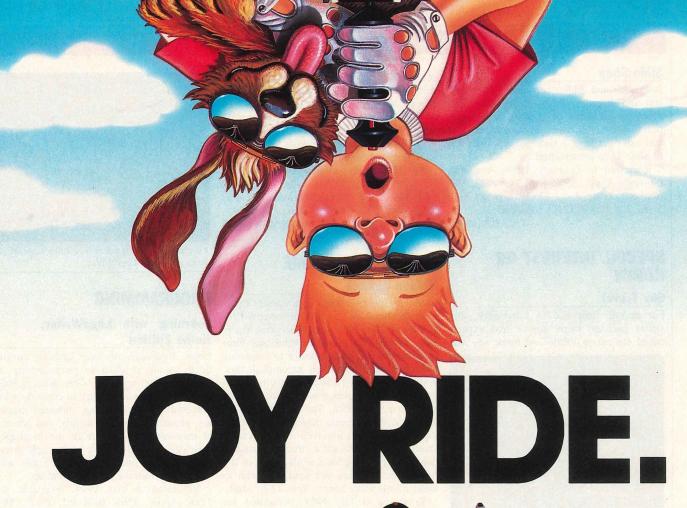
Anyone can produce attractive hard copy with very little time and effort using *Poster-Maker Plus*. Plenty of fonts and graphics, as well as tools for creating special effects, make this tool equally useful for both family and business. Whether it's used to create a dazzling party banner, an award-winning poster for a science project, or an effective business advertisement, it's a must for all.

Reviewed in October 1988. Available for 512K Macintosh; \$60 from Broderbund Software, 17 Paul Dr., San Rafael, CA 94903; (415) 492-3200.

—TAN SUMMERS

## GET INVOLVED WITH COMPUTER LEARNING MONTH

October is the official month for celebrating the progress of computers in the learning environment. To get involved in the many exciting Computer Learning Month activities, contact your child's school to see what special events they have planned. Or better yet, help plan a computer fair or fund-raiser yourself. Also, check your local computer dealer for details on contests and promotions related to Computer Learning Month. You and your children could win sensational hardware and software prizes or discounts. You may even learn a thing or two.



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Available for all Apple and IBM Computers including Macintosh and PS/2 series.

#### Slide Shop

Both kids and adults can create on-screen text and graphics slides, merge them into video presentations, or mail a disk presentation to a friend or client. Special effects that you can't get from a slide projector add zip to *Slide Shop* presentations.

Reviewed in February 1989. Available for 128K Apple, 256K IBM PC, PS/2; \$73 from Scholastic, Inc., 730 Broadway, New York, NY 10003; (212) 505-3000.

—TAN SUMMERS

or constellation, view and chart sky patterns from different angles, travel backward and forward in time to see how the sky appeared or will appear on a certain date, and emulate solar and lunar eclipses. Detailed data on stars and constellations provide hours of entertaining and educational fun.

Reviewed in November 1988. Available for 256K Apple, C 64, 512K Macintosh; \$50-\$70 from MicroIllusions, 17408, Chatsworth St., Granada Hills, CA 91344; (818) 360-3715.

—NORMA ODISIO

# I Logo I Logo Logo

Kids at home can learn to love Logo with the home edition of LogoWriter.

## SPECIAL INTEREST OR HOBBY

#### **Sky Travel**

For anyone interested in astronomy, this stellar package helps novice and experienced stargazers locate and name any star



This screen from Sky Travel shows the sky in New York City on Thanksgiving night.

#### **EDUCATIONAL GAME**

#### **Hidden Agenda**

Following the overthrow of a corrupt rightwing dictatorship, you become the new *Presidente* of Chimerica, a small Central American country. You have one three-year term in which to lead your country to economic and social well-being. To accomplish this, you must perform a careful balancing act to keep the fragile peace among the various factions in Chimerica. The intelligently designed *Hidden Agenda* offers a broad overview of the issues involved in governing a small third-world country. But more important, after you play for a while, some of the newspaper headlines you read may start to make a little more sense. Ages 12 to adult.

Reviewed in July 1989. Available for 512K IBM PC, PS/2, 512Ke Macintosh; \$60 from Springboard Software, Inc., 7808 Creekridge Circle, Minneapolis, MN 55435; (612) 944-3915. —STEVEN WILLIAMS

#### **PROGRAMMING**

### Learning with LogoWriter, Home Edition

Logo, a popular computer language, introduces young children to programming in creative, unintimidating ways. Kids bubble with excitement as they try to come up with procedures for generating animated graphics, geometric designs, sounds, and personal messages. As they learn the language, their designs will become more sophisticated, and their math and verbal skills will strengthen. Fun for anyone 7 and up.

Reviewed in May 1989. Available for 128K Apple, 256K IBM PC, PS/2; \$99 from Logo Computer Systems, Inc., 3300 Cotê Vertu, Suite 201, Montreal, Quebec, Canada, H4R 2B7; (514) 331-7090.

—CAROL S. HOLZBERG

# Software For Learning and Leisure

Comprehensive and Capsule Reviews of New and Noteworthy Programs for Education, Family Productivity, and Entertainment

The following ratings key and table refer to full as well as capsule software reviews. Listed are various types of computers, as designated under "System Requirements," and the models included under each designation. When a review lists additional hardware, software, or memory, it is required unless noted as "recommended" or "option—

al." When a review lists more than one computer, the machine marked with an asterisk (\*) is the one on which the software was reviewed. Requirements are *not* listed where obvious (for instance, printers with graphics programs). Operating system requirements, such as MS-DOS or the Macintosh System file, are listed only when they're not the

standard, minimum requirement (DOS 2.0 for IBM PC or compatibles, System 3.2 for the Macintosh, or ProDOS for the Apple II). For those computer systems that can use both 5.25- and 3.5-inch disks (IBM PC and PS/2 or the Apple II), we've listed only those disk sizes that are either supplied with the software or available at no extra cost.

Ratings Key: O Poor; \* Average; \*\* Good; \*\*\* Very good; \*\*\* Excellent.

Designation	Models
512K Amiga	500, 1000, 2000
48K Apple	II/II Plus/IIe/IIc/IIGs (in IIe/c mode)
64K Apple	II Plus/IIe/IIc/IIGs (in IIe/c mode)
128K Apple	Ile/IIc/IIGs (in IIe/c mode)
128Ke Apple	IIe (enhanced ROM)/IIc/IIGs (in IIe/c mode)
Apple IIGS	IIGs only
48K Atari	800/600XL/800XL/65XE/130XE
512K Atari ST	520ST/1040ST/Mega ST
C 64	C 64, C 128 (in C 64 mode)
IBM PC	PC/XT/AT, PS/2 and compatibles
128K Macintosh	128K/512K/512Ke/Plus/SE/II
512K Macintosh	512K/512Ke/Plus/SE/II
512Ke Macintosh	512Ke/Plus/SE/II
1MB Macintosh	Plus/SE/II

#### **EDUCATION/FAMILY**

#### Joshua's Reading Machine

SYSTEM REQUIREMENTS: Reviewed on 256K IBM PC, PS/2. Also for 128K Apple, 256K Apple IIGS, 512K Macintosh

PUBLISHER: CompuTeach, 78 Olive St., New Haven, CT 06511, (203) 777-7738

PRICE: \$40 AGES: 4–7

COPY PROTECTED: No

OVERALL PERFORMANCE: ★ ★ ★
DOCUMENTATION: ★ ★ ★

ERROR HANDLING: ★ ★ ★

GRAPHICS QUALITY: ★ ★ ★
EASE OF USE: ★ ★ ★



Joshua's Reading Machine cranks out assorted games to teach basic reading skills.

Joshua's Reading Machine presents nine educational games based on popular fables, rhymes, and songs with plenty of graphics and music to keep young children entertained as they learn. With 37 favorites, such as "Mary Had a Little Lamb," "The Boy Who Cried Wolf," and "Hush Little Baby," this early reading program can easily become part of the bedtime ritual. Josh-

ua's Reading Machine can smoothly guide 4- to 7-year-olds through important first steps on the path to reading.

Children can choose from Aesop's Fables, Children's Songs, or Mother Goose and then select the type of game to play. In one game, a simple picture dictionary displays nicely detailed color graphics illustrating words related to the story. You can read along with your child to help reinforce the association between letters and pictures. As children learn to recognize words, the game can be switched around so that the words are displayed, then the graphic.

In another game, the story is told through a series of words and pictures. Youngsters are encouraged to substitute the correct words for the pictures. This helps develop memory skills and reinforces the basics of reading. It won't take long before children can recite entire stories from memory.

As children become more familiar with the stories, the game challenges them to guess the next picture. Another game places random pictures in the story and asks if they belong. This is like intentionally reading a favorite story wrong. It usually amuses young children, as their memory skills are challenged to correct a silly storyteller. For young readers, this game can also be played with random words instead of pictures.

Another game encourages children to type a word for each graphic presented. The most difficult game involves guessing words that are missing from a story.

Joshua's Reading Machine effectively introduces the elements of reading with familiar stories and music. Your child won't even know he or she is learning.

-MATTHEW J. W. RATCLIFF

#### The Puzzle Storybook

SYSTEM REQUIREMENTS: Reviewed on 512K Macintosh. Also available for 1MB Amiga, 512K IBM PC, PS/2 with CGA; 5.25- or 3.5-inch disks (IBM)

*PUBLISHER:* First Byte, 3100 South Harbor Blvd., Suite 150, Santa Ana, CA 92704; (714) 432-1740

PRICE: \$40

COPY PROTECTED: No

OVERALL PERFORMANCE: ★ ★ ★

DOCUMENTATION: ★ ★

ERROR HANDLING: ★ ★ ★

GRAPHICS QUALITY: ★ ★ ★

EASE OF USE: ★ ★

The Puzzle Storybook from First Byte is one of the best programs I've seen lately for children ages 3 to 8. The Picture, Puzzle, and Story sections delight children, as Zug, the talking Megasaur, guides them through the lessons.

The Story section is by far the best com-



Children may need your help writing stories for The Puzzle Storybook.

ponent of *The Puzzle Storybook*. After a picture is selected from the library, a split screen shows the picture on the left and a clean slate on the right, where the child may write an original story about the selected artwork.

Jonathan, my 5-year-old son, cannot yet read or write, but he has a vivid imagination. He had fun dictating his story to me. When he noticed a radio icon at the bottom of the screen, Jonathan clicked the mouse to select it. Was he surprised! Zug read his story aloud, to the delight of both of us. Clicking on the print icon gave Jonathan a hard copy of his creative achievement.

The Picture component let Jonathan create a scene using the objects, buildings, and animals provided. In the Puzzle section, Zug asked if he wanted a new picture or wished to select one from the library. The library contains all pictures previously created, so naturally, Jonathan chose his newly created picture. Once he selected his picture, he was asked if he wanted to play the Shape or Tile game and at an easy or hard level

The Tile game scrambles the selected picture into small squares, six for an easy level and nine for hard. The screen is split in half with the scrambled tiles on the right and the same number of blank squares on the left. An eye icon at the bottom allows the child to ask for a sneak preview of the completed picture as a hint while unscrambling the tiles. The Shape game also splits the screen in half. Here the child has to match shapes with those in the picture. This is good reinforcement for shape recognition.

The Puzzle Storybook is a good learning tool, but be prepared to spend time with your child. After an introduction to the program, the first two sections can be managed by a young child independently. But the real value of the program lies with the Story section, which validates the child as an author. Unless your child can already read and write, adult assistance is a must. Once your child reaches the primary level of literacy, I suspect he or she will have outgrown the program.

The Puzzle Storybook supports the Mac 512K, Mac Plus, and Mac SE computers and the ImageWriter I and II printers. However, it does not support color printing on the ImageWriter II and cannot run on the Mac II or Mac SE/30. First Byte confirmed that an upgrade, including support of the LaserWriter, will be available shortly.

—JUDITH ZORNBERG

#### **ENTERTAINMENT**

#### **Red Storm Rising**

SYSTEM REQUIREMENTS: Reviewed on 384K IBM PC, PS/2; with CGA, EGA, VGA, MCGA, or Hercules; 5.25- or 3.5inch disks. Also for 512K Atari ST, C 64

PUBLISHER: Microprose Software, Inc., 180 Lakefront Dr., Hunt Valley, MD 21030; (301) 771-1151

PRICE: \$45-\$55

COPY PROTECTED: Yes

OVERALL PERFORMANCE: ★ ★ ★

DOCUMENTATION: ★ ★ ★

PLAY SYSTEM: ★ ★ ★

GRAPHICS QUALITY: ★ ★

EASE OF USE: ★ ★ ★



Sonar helps you track enemy subs lurking in the cold North Atlantic waters in Red Storm Rising.

Until now, attempts to make the transition from novel to computer game have been generally less than impressive. Finally, someone got it right. Based on Tom Clancy's best-seller about World War III, Red Storm Rising drops you with nail-biting accuracy into the Captain's chair of a U.S. nuclear powered fast attack sub, or SSN. Unlike the nuclear-missile-bearing behemoths that lurk quietly in the deep, SSNs are fast, agile, and very deadly. At the start of the game, confrontation quickly turns to war in Central Europe. You are given the task of keeping the shipping lanes open and repulsing Soviet landing attempts in the vital Norwegian Sea corridor of the North Atlantic. When the huge Soviet Red Banner Northern Fleet sorties and heads west, you will have your hands full.

This is the job the SSN was designed for, and you have quite a few high-tech toys to use against the onrushing horde. Wire-guided MK 48 torpedoes will be a frequent weapons choice. These torpedoes offer you the ability to steer the torpedo after it is fired at a maneuvering target. And unlike your World War II predecessors, you also have tube-launched Harpoon and vertically launched Tomahawk antiship missiles to deal with those pesky Anti-Submarine Warfare groups.

Surface ships can be dangerous, but a sub driver's biggest threat is always another sub. You will constantly hunt and be hunted by a wide variety of threatening Soviet subs, from superfast Alphas to super-quiet Kilos. The key to staying alive in the cold North Atlantic is learning how to use your active, towed-array, and passive sonar systems. No easy task, as surface sound ducts, thermal layers, convergence zones, water salinity, pack ice, ice floes, and shallow water all affect sonar operation. The trick is learning to find a spot where you can hear the enemy and it can't hear you.

If all of this (and the 100-page manual) sounds just a little intimidating, don't worry. The simulation offers several difficulty levels, so there is always a level where you can do well or be challenged. A keyboard overlay is provided to help with the commands, which after two or three missions will become quite familiar. The manual, though long, is very well done. Most of it is composed of historical and technical data, and the rest can be digested in small bites. The information provided on submarine tactics and strategy will prove very valuable.

Add to all of these details the Campaign Mode, which brings in the feel of the novel, and you have a challenging simulation that is both accurate and entertaining. No —RICHARD SHEFFIELD easy task.

#### Indiana Jones and the Temple of Doom

SYSTEM REQUIREMENTS: Reviewed on 512K IBM PC, PS/2; CGA, EGA, VGA, MCGA; 5.25- or 3.5-inch disks. Also for 512K Amiga, 128K Apple, 512K Atari ST, C 64; 5.25- or 3.5-inch disks (Apple)

PUBLISHER: Mindscape, Inc., 3444 Dundee Rd., Northbrook, IL 60062; (312) 480-7667

PRICE: \$35-\$50

COPY PROTECTED: Yes

OVERALL PERFORMANCE: ★ ★

DOCUMENTATION: ★

PLAY SYSTEM: ★ ★

GRAPHICS QUALITY: ★ ★ ★

EASE OF USE: ★ ★ ★



Indy takes a ride on a dangerous mine railway in Temple of Doom.

Indiana Jones and the Temple of Doom: You loved the movie, so you'll love the game—or will you? Its plot follows that of the movie: Whip-cracking Indy must first find and free several children from cages, then escape down the treacherous tracks of the mine in a cart, and finally take the sacred Sankara stone. This accomplished, he's bounced back to the beginning to free more children, zoom down more tracks, and take another stone. Bats, Thuggee guards, fireball-throwing magicians, and snakes (Indy hates snakes) block the way. Cracking a whip at most of the obstacles causes them to dissolve and earns points. Guards are only stunned and soon return to gang up on Indy. If you've decided to send him through the Medium or Difficult entrances to the mines, Indy will also have to avoid rising and falling spikes.

Part of the fun of arcade-type computer games is learning how to beat new hazards on higher levels. Not so with Temple of Doom. Although the IBM and Amiga versions of Temple of Doom do add moving conveyer belts and rickety suspension bridges to successive trips into the mine, these are easy to master, and the scenario remains essentially the same. Warning messages constantly flash on the screen: "Whip the bats, Indy!" "Whip the Thuggee guards, Indy!" When played on a standard IBM PC or XT, the game often displays these warnings after the bat or guard has already whomped Indy. It works much better on faster computers and looks infinitely better in EGA than in CGA.

The movie, Indiana Jones and the Temple of Doom, was criticized by many for its violence and portrayal of child abuse. The game has no such problems. The only person likely to die in this game is the player of boredom. Good graphics and sound effects aren't enough to make up for a lack of playing excitement, despite the three difficulty levels. Only real Indiana Jones fans will want to bother with Temple of Doom.

—TAN A. SUMMERS

## **Entertainment News**

The Latest Scoop on Games

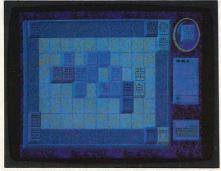
#### BY RICHARD SHEFFIELD



#### GREAT GAMES FROM DEAD DESIGNERS.

How's that for a tabloid headline? Three new releases are computer adaptations of ancient games of skill and strat-

egy. California Dreams leads the way with *Mancala* (512K Apple IIGS, C 64; \$30–\$40). Billed as Africa's national game and perhaps the oldest game known to man, it is played with stones and cups. The idea is to capture your opponent's stones while protecting yours. The rules of the game are amazingly simple, yet play can become very complex (not to mention addictive) as you try to think several moves ahead. Also from California Dreams is *TrianGO* (512K Amiga, 512K Apple IIGS, 256K IBM PC,



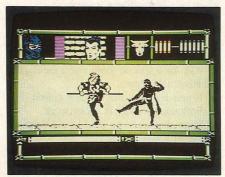
The rules are few, but the hours of satisfying play in Ishido can be many.

PS/2, 512K Macintosh; \$30-\$40), an adaptation of the Oriental classic Go. Using futuristic graphics to spice things up a bit, it is basically the same game that has been enjoyed for centuries.

Ishido (Planned for Apple, Amiga, IBM, Macintosh), from Epyx, is a computer version of an ancient board game that has been uncovered in archaeological digs all over the world. Sites in England, Japan, Australia, Mexico, Israel, and Egypt have all mysteriously yielded boards and stones of similar design. As with most widely popular ancient games, the rules are simple: Place your square stones on the board so that each one matches either the color or the symbol on an adjacent stone. Points can be multiplied by making two-, three-, or four-sided matches. The graphics for this game are outstanding, and the stone-on-stone clicking sound made

when a piece is placed is particularly satisfying.

**NEW WORLDS FROM ORIGIN.** The makers of the award-winning *Ultima* series should have four new worlds for you to explore by Christmas. All rich in detail, two of the games will be set in the distant future and two in the distant past. An experienced fan-



Enter the ancient Orient to train under the martial arts master Windwalker.

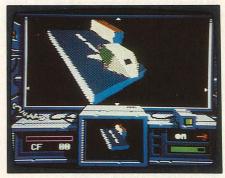
tasy role-playing gamer I'm not. I'm usually history after my first encounter with a wizard or anything with teeth and claws that's larger than a house cat. But Origin's new role-playing adventure, Knights of Legend (512K Amiga, 64K Apple, C 64, 256K IBM PC, PS/2; \$50), has me excited. The design is modular so additional realms may be added later with complete portability of characters and possessions. I particularly like the interface. It's easy to use and will get you moving quickly. When you confront an object or character, your options are listed on a menu. An object will let you know if it can be spoken to. That should save a lot of time wandering around saying hello to every bush, tree, or shrub you pass. Each module—there will be five more—will feature quests of various lengths. Some can be completed in an evening.

Windwalker (512K Amiga, 128K Apple II, C 64, 256K IBM, 512K Macintosh; \$40) is the sequel to the martial arts classic Moebius. In this blend of combat and role-playing you are recruited by martial arts master Moebius the Windwalker for training. Your mental and physical skills grow as you explore a land rich in oriental beauty and mystery. Author Greg Malone went to extraordinary lengths to insure the game's accuracy, and many of the character faces used in the

game were scanned in from portraits in ancient manuscripts. He jokes that this game has been 2,000 years in the making.

Engineers beware! You could be facing a serious productivity crisis with the release of Origin's OMEGA (512K Amiga, 64K Apple II, 512K Atari ST, C 64, 256K IBM PC, PS/2, 512K Macintosh; \$50). This is not only a futuristic cybertank simulation, but a design station as well. You must assemble or modify various chassis components to create the ultimate fighting vehicle. You can design your machine using predefined capsule routines and pull-down menus or (for serious number crunchers) by using an English-based Cybertank Command Language. Compete against 12 standard computer designs or transfer in designs by others and try to vaporize a friend!

Become a cross between Captain Kirk and Chuck Yeager in Origin's *Space Rogue* (512K Amiga, 64K Apple II, 512K Atari ST, C 64, 384K IBM PC, PS/2, 512K Macintosh; \$50) as you explore strange new worlds, engage in air-to-air (and space-to-space) combat, and try to make a buck at the same time. For those of you who would like a little more depth in your flight simulators,



You are a Space Rogue in a 3-D flight simulator in one of Origin's latest games.

this could be the ticket. Develop piloting, trading, and strategic skills as you build your ship, earn enough to keep from running out of gas between planets, and become the central character in an epic space novel. I'd say that's a full plate.

**SIMULATIONS: THE NEXT GENERATION.** Two major obstacles facing designers of combat simulations are how to incorporate modem play and how to set up campaign modes where the player's performance in small bat-

tles affects the outcome of a larger war or battle. This has been done very well in MicroProse's Red Storm Rising (C 64, 384K IBM PC, PS/2; planned for Atari ST; \$45—\$55) sub simulation (see review in this issue). The player's success or failure in accomplishing his or her assigned mission arfects the outcome of the war. This feature brings the feel of a novel to combat simulations for the first time.

Connectivity is the ability to play against another human player, usually via a modem. This feature helped make Falcon, by Spectrum HoloByte, successful. Now Electronic Arts is offering a package that will feature both connectivity and campaign modes. F-16 Combat Pilot (512K Atari ST, 512K IBM PC, PS/2; \$50) will be the first air combat simulation to include squadron strategy. Not only must you worry about completing your own mission, but you must also assign targets for the rest of the squadron. There are 10 different and increasingly difficult campaigns. Each will require your squadron to successfully complete a series of flights. Each campaign features more than 1,000 fixed and mobile targets spread over thousands of square miles. In addition, you can set the game up to fly head-to-head against a friend via direct datalink or modem.

Spectrum HoloByte is looking into taking the campaign and connectivity concepts a step further. The company is working on a new system and series of games that would use a major on-line service as a host. In this system, dozens of players could work together in a major battle. They would use a modified version of F-16 Falcon, a new A-10 Thunderbolt simulation, a new M1 Tank simulation, and possibly an attack helicopter simulation. Rumors leaking out of Maryland indicate that MicroProse is starting to talk about a similar plan. The idea of 20 or 30 players from all over the country connected together to fight on and over the same battlefield is certainly exciting. But I may have to mortgage the house to pay for my on-line charges! Better start saving now.

RICHARD G. SHEFFIELD is a freelance writer based in Atlanta, Georgia, and has written several books on computer games.

#### **GAME HINTS**

**Gold Rush!** (Sierra On-Line). This graphic adventure takes you from the streets of Brooklyn, New York, to the foothills of California in search of your long lost brother. On the way you will sail the oceans, ride a stagecoach, find gold, and learn about the pioneers who actually lived the wild-west adventure.

★ Real-estate prices fall after the gold rush begins.



- ★ Visit your parents' graves or you will forget where you come from.
- ★ Scurvy and mosquitoes attack ship passengers.
- ★ Fishing can be rewarding.
- ★ You can lead an ox to water, but not when he's hitched to a stagecoach.
- ★ Read more than a tombstone in Sutter's Fort.
- ★ A miner needs a trusty mule, a shovel, a pan, and a lantern.
- ★ Ask for a special room and a message at the Hotel in Coloma.
- \* It gets hot with the window closed.
- ★ Following a mule is tricky work.
- ★ Mine shafts can be hard to see from the middle of a ladder.
- ★ Why waste time picking all over for gold when James knows exactly where to look?

—MARIETTA T. STOREY Teague, Texas

**F-19 Stealth Fighter** (Microprose Software). Fly the latest combat aircraft technology around the world in air-to-air or strike missions.

★ Don't bother using an extra fuel tank unless the fuel estimate for a mission is over 11,100 pounds or you plan to do a lot of dogfighting.



- ★ Unless you are on a photography mission, the best armament is a bay of Sidewinders, a bay of AMRAAMs, and two bays of Mavericks.
- ★ In case of emergency, drop a decoy, extend your flaps, lower your throttle 30 to 40 percent, and dive to 200 feet. Keep your airspeed low and don't make any sudden movements.

- ★ If an enemy gets a visual or radar fix on you in cold or limited war, take the time to shoot him down. Your score will suffer otherwise.
- ★ In the IBM version, for a little more visual excitement, try setting the detail at views become smooth and exhibitarating.

—MATT DIMMIC St. Charles, Missouri

**Defender of the Crown** (Cinemaware). Build up your army and help unite medieval England under Saxon rule in this interactive movie.

★ When starting a game, try to gain as many territories as possible (especially Gloucester).



- ★ Don't attack other Saxons early in the game. You may be allowed safe passage through their territories.
- ★ Joust only when necessary.
- ★ Never leave your home castle unprotected, unless it is surrounded by your own territories.
- ★ Do not buy more than two catapults.
- ★ You may not want to buy knights too early in the game.
- ★ If you aim for the legs of the horse when jousting, your land (or your fame) will be taken away from you and your leadership rating will suffer.

—KYLE LEE Torrance, California

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Don't miss the opportunity to share your original game hints and tips with other readers. Submit entries to Entertainment Editor, HOME-OFFICE COMPUTING, 730 Broadway, New York, NY 10003. Include your name, address, telephone number, a short description of the game, and the brand and model of the computer you own. If your tips are selected for publication, we'll award you a new game for your computer. We reserve the right to edit submissions for accuracy, clarity, and length. Unfortunately, we cannot acknowledge each submission.

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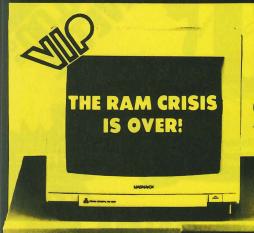
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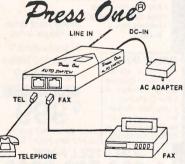
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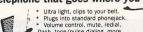
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C.H. Products	85
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Citizen America	15
Compu-Quote	103
CompuServe	39
CompuWare	97
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Great American Software	21
Great American Software	79
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Miccasoft Mitcubiahi Floatronica	92
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Northgate	40-41
Northgate	42-43
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Sofsource	102
Softshoppe	102
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Spinnaker	76
Star Software	12
Tandy	1 10 11 2
Tandy	17
Timeworks	29
Toygo, Inc.	103
USA Today	13
Wordperfect	48
ZEOS	6-7

## My Office, My Castle

BY NICK SULLIVAN



I recently had a houseguest who designs Japanese gardens for wealthy people. He showed me slides of a work in progress: a Zen-like "stroll" garden with wash basins, sculpted

rocks, and miniature pines in the courtyard of a Greek Revival mansion. On the far side of the garden, stairs lead up to a home office. There sits a man, says the gardener, who makes millions in the merger business as he looks out over Long Island Sound. The house is white, the garden green, the checking account flush. It's the Great Gatsby, working from home.

The slides reminded me that one of the main benefits of working from home is that you can create your own environment. You are not plopped down in an office of your employer's choosing with a military-issue desk and chair next to a window that doesn't open (or a stark wall). You are the architect of your own ambience. You are the boss, office manager, and accountant. Just speak, and you shall sit in splendor! Just point, and fountains will spout!

The morning after this flight-of-fancy slide show (I had imagined myself strolling through the garden and gliding up the stairs to a mahogany desk in front of a picture window), I found myself *chez moi*. *Chez moi* is a friendly, but by no means splendiferous place, despite recent improvements.

My office is in the loft of a converted cow barn. The barn has a gambrel roof, so my walls and ceiling are more or less one slanted piece with an angled knee-joint near the middle. I like rooms with slanted walls, having slept in one as a teenager, but I often have the urge to blast through and install dormer windows. They would add light and space.

A large window at the north end of the room, in the shape of the old hayloft doors, provides most of my light and all of my view. From my desk I look out on a shed with a rooster weathervane, clay horseshoe pits, a maple tree with a bluebird house, and a field with cow corn.

Senior editor NICK SULLIVAN telecommutes to the New York office from Massachusetts. He can be reached on CompuServe (ID: 76703,744) or MCI Mail (ID: NSULLIVAN).



# One of the main benefits of working from home is that you can create your own environment.

Until recently my office walls were unpainted. Cold, white plaster, a reminder of construction, was the pervasive motif. To soften the room and make the most of the northern light, I slapped on two coats of buckskin, a warm, flesh-tone paint. For a while, after skimming a book called *Paint Magic*, I had entertained the idea of doing a kind of fresco wash on the walls. But the man in the paint store said, "You wanna what?" and started making fun of decorators. "Decora-toors," he jibed in fake French. I dropped that idea.

Between painting and tiling, I have about 100 hours invested in my office's adjoining bathroom, and it's not even finished. The freedom to create your own space *does* have its flip side. But it is private, quite a luxury in the work-a-day world.

Despite going five years without paint, my office has been fully functional since construction. I had installed two telephone lines and plenty of plugs during construction, so after I swept up the sawdust and cleaned up the plaster splotches, I was almost ready to work.

I bought a real desk and an ergonomic chair at an office-supply store—both great investments. The desk is 30 inches high, standard typing height. A sheath in back hides power cords, and a recessed shelf holds computer manuals. Two deep shelves hold the computer system and printer. On the desktop there's a keyboard, a monitor, a two-line phone, and plenty of room for papers and other junk. The fax sits nearby on a low table, tucked under the slanted wall.

Other furnishings include a futon couch and a low-slung reading chair near the window. After staring at a computer for hours on end, I slouch down in the couch or chair to restore body and mind.

I also have a bookshelf with work-related books and an upright desk for bill paying and letter writing. My chair rolls me across the room to it in about two seconds. Experts say you should separate work and personal areas, but I don't consider bill paying to be a very personal exercise. Plus, the second desk gives me a place to keep receipts for business-related expenses and an extra countertop to sort the morning mail.

I don't have much art hanging in my office, partly because the slanted walls don't accommodate it. On top of the upright desk is a painted wood carving of a bassett hound, which I won as a woodworking prize in ninth grade. On the walls hang a few magazine covers and two black-and-white photographs.

One of them is of Babe Ruth sitting in the Boston Braves dugout—in overcoat and Irish cap and with a cigar. This somewhat melancholy portrait of the once-great athlete at the end of his career and near death is the last part of my baseball shelf (with autographed balls and books) that remains in my office; I had to move most of its contents into the hallway to make room for work-related books. That photo is one of my prized possessions; it says, "This is my room."

My office is just a comfortable room with work tools and a few personal belongings. But compared with the bland and cramped space you can expect in most corporate offices, it looks and feels like an executive suite. And I guess that makes sense. When I'm in my loft, I'm chairman and CEO.



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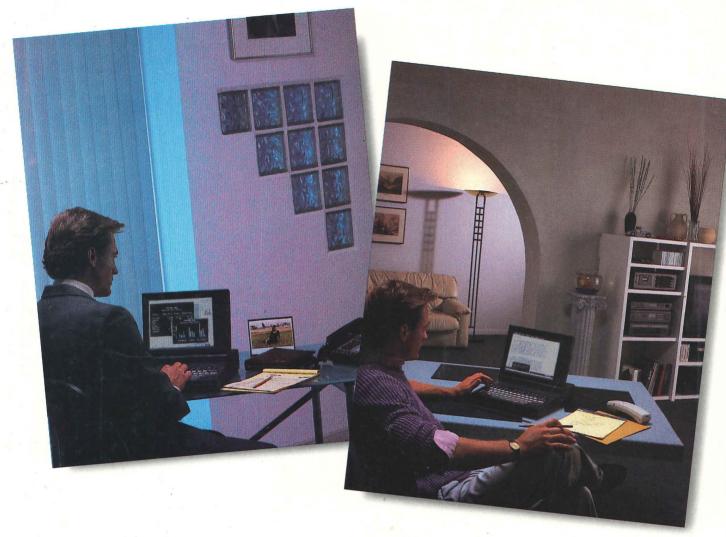
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